

# SERVICE MANUAL

## AE-5 CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.	MODEL	COMMANDER	DEST	CHASSIS NO.
<b>KV-28FC60</b>	RM-892	Europe	SCC-Q11K-A	<b>KV-32FC60</b>	RM-892	Europe	SCC-Q11G-A
<b>KV-28FC60/Z</b>	RM-892	Europe	SCC-Q11J-A	<b>KV-32FC60/Z</b>	RM-892	Europe	SCC-Q11H-A

## FD Trinitron



TRINITRON® COLOR TV  
**SONY®**


ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP	B/G/H, D/K, L, I	GERMAN /NICAM Stereo	L VHF : F02-F10 UHF : F21-F60 CABLE : B-Q B/G/H VHF : E2-E12 UHF : E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF : A-H2 (C) UHF : 21-69 I UHF : B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

Model	28FC60	28FC60/Z	32FC60	32FC60/Z
Power Consumption	132W	132W	130W	130W

Picture Tube	FD Trinitron Approx 71cm (28 inches) (Approx 66cm picture measured diagonally) Approx 82cm (32 inches) (Approx 76cm picture measured diagonally) 110 degree deflection	Sound output Subwoofer	Right and Left speaker 2 x 25W (Music Power) 2 x 15W (RMS)
<b>Input/Output Terminals [REAR]</b>		Power Requirements	220 - 240V
1:21-pin Euro connector (CENELEC standard)	Inputs for Audio and Video signals. Inputs for RGB. Outputs of TV Video and Audio signals.	Dimensions	28" 772(w)x497(h)x533(d)mm 32" 867(w)x564(h)x558(d)mm
2:21-pin Euro connector	Inputs for Audio and Video signals. Inputs for S Video. Outputs of TV Video and Audio signals. (selectable)	Weight	28" Approx 42.5kg 32" Approx 65kg
3:21-pin Euro connector	Inputs for Audio and Video signals. Inputs for S Video. Outputs of Audio/Video signals (monitor out)	Supplied Accessories	RM-892 Remote Commander (1) IEC designated R6 battery (2)
RCA Jacks	Output for Audio Signals	Other Features	NICAM stereo, NexTVView, Digital Comb Filter 100Hz Picture Graphic Equaliser
External speaker terminals	2 pin DIN		
S Video input	4 pin DIN		
<b>Input/Output Terminals [FRONT]</b>		Remote control system	Infrared control
Headphone jack	stereo minijack	Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
		Dimensions	Approx 210x55x23mm (w/h/d)
		Weight	Approx 110g (not including battery)
<b>Design and specifications are subject to change without notice.</b>			

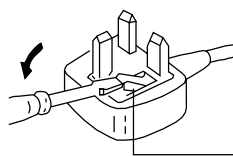
Model Name Item	KV-28FC60	KV-28FC60/Z	KV-32FC60	KV-32FC60Z
Pal Comb	ON	ON	ON	ON
PIP	OFF	OFF	OFF	OFF
RGB Priority	ON	ON	ON	ON
Woofer Box	ON	ON	ON	ON
Scart 1	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON
Top Rear in (3)	ON	ON	ON	ON
Scart 4	ON	ON	ON	ON
Projector	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON
Norm I	ON	ON	ON	ON
Norm D/K	ON	ON	ON	ON
Norm AUS	OFF	OFF	OFF	OFF
Norm L	ON	ON	ON	ON
Norm SAT	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF
Teletext	ON	ON	ON	ON
Nicam Stereo	ON	ON	ON	ON

## WARNING (UK Models only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** rating. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by ASTA to **BS 1362**, ie one that carries the  mark.

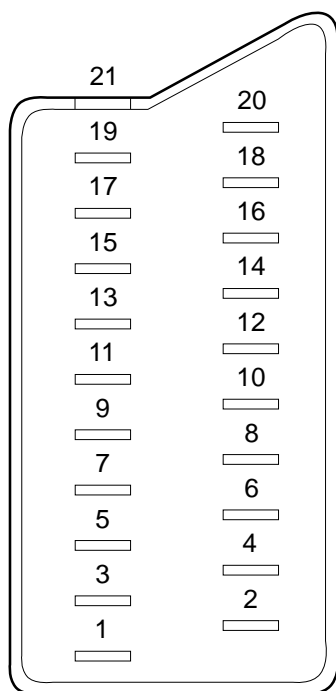
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR THE OUTLET SOCKETS IN YOUR HOME, IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET.

When an alternative type of plug is used, it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.  
Open the fuse compartment with a screwdriver blade and replace the fuse.

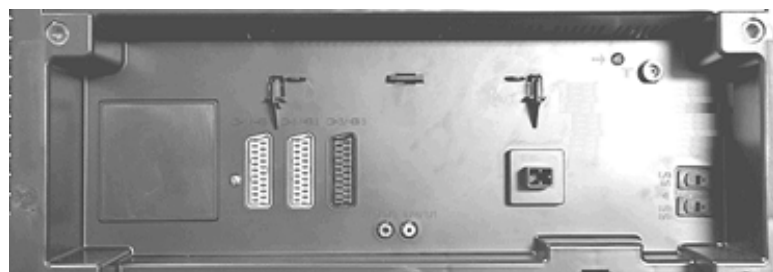
## 21 pin connector



Pin No	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
2	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedance : More than 10kohm*
7	○	●	●	Blue input	0.7 +/- 3dB, 75 ohms positive
8	○	○	○	Function select (AV control)	High state (9.5-12V) : Part mode Low state (0-2V) : TV mode Input impedance : More than 10K ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 +/- 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	-	-	Red input	0.7 +/- 3dB, 75 ohms, positive
	-	○	○	(S signal Chroma input)	0.3 +/- 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1-3V) Low state (0-0.4V) Input impedance : 75 ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
20	○	-	-	Video input	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
	-	○	○	Video input Y (S signal)	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected      ● Not Connected (open)      \* at 20Hz - 20kHz

## Rear Connection Panel



S Video socket pin configuration		
Pin No	Signal	Signal Level
1	Ground	-
2	Ground	-
3	Y (S signal) input	1V +/- 3dB 75ohm, positive Sync. 0.3V -3 +10dB
4	C (S signal) input	0.3V +/- 3dB 75ohm, positive Sync.



S-Video socket



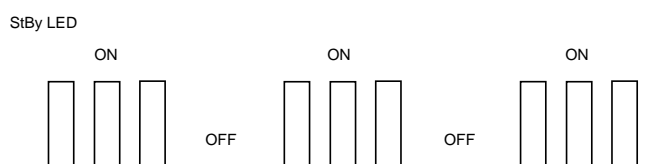
## AE-5 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the AE-5 chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See table 1., non fatal errors are reported using this method.

Diagnostic Item Description	No of times Standby LED Flashes	Probable cause Location	Detected Symptoms
Power does not turn on	Does not light	Power cord is not plugged in. Fuse is open circuit.	Power does not come on No power is supplied to the TV AC power supply is faulty
+B Overcurrent (OCP)	2 times	H.OUT (Q6803/6804) is shorted. (D Board) Linearity FET (Q6806) is shorted. (D Board) IC6604 Power IC is shorted. (D Board)	Power does not come on Load on power line has shorted
Vertical Deflection stopped	4 times	+15V is not supplied R6835 open (D Board) -15V is not supplied R6834 open (D Board) IC6700 is shorted (D Board)	Vertical deflection pulse has stopped Power line has shorted

Error Message	LED Code
No error	00
I2C bus error	01
OCP ( Over Current Protection )	02
OVP ( Over Voltage Protection )	03
Vertical Protection	04
Reserved	05
Horizontal Protection	06
Speaker Protection	07
M-B. Teletext Decoder	08
M-B. ST24C32, NVM	09
J-B, TDA9320, Main Colour Decoder	10
B1/B2-B, Feature Box	11
B1-B, D/A Converter	12
E-B. Backend	13
J-B. MSP3410D, Sound Processor	14
J-B. CXD2057, Auto Wide	15

### Flash Timing Example : e.g. error number 3



## Error Detection Monitor

Device acknowledge is used to check IIC errors. Device acknowledge is checked by sending an IIC start sequence during CRT power on. Each device is checked three times, if there is no acknowledge after each attempt, it will be regarded as an error. There are three steps to check for errors.

1. IIC line 0  
If all devices except the NVM have errors, IIC line 0 error is displayed.
2. Board check  
If all devices mounted on one board have errors, board error is displayed.
3. Each device check  
If IIC line error and board error are not detected then the device with the error is displayed.

The detected errors can be displayed as follows :

1. Error Monitor Menu.
2. Error Reader.

### 1. Error Monitor Menu

ERROR MONITOR

Operating Time :000021h55min

Stored Errors :

1.	100h	A-Board
2.	401h	BP-B CXD2069 MID
3.	704h	J-B TDA9320 Main Col Dec
4.	000h	no error occurred
5.	000h	no error occurred

Current Error :  
Start Error Sequence

## 2. Error Reader Display

The error reader display is connected to the service connector to read actual error codes. The part number for the error reader display is S-188-900-10. Once an error has been detected it will then be displayed on the two digit error reader. The errors displayed refer to the following table.

Error Code	Error Message
000h	No error occurred
001h	Bus error, IIC0
002h	Bus error, IIC1
<b>100h</b>	<b>A-Board</b>
101h	A-B. CXA1875, Port Expander
102h	A-B. TU1326, Main Tuner
103h	A-B. TU1350, Sub Tuner
<b>200h</b>	<b>B1-Board</b>
201h	B1-B. P83C654, Feature Box B1-B. SDA9280, D/A Converter
202h	B1-B. P83C654, Feature Box B1-B. SDA9280, D/A Converter
<b>300h</b>	<b>B2-Board</b>
301h	B2-B. SAA4977, BESIC
<b>400h</b>	<b>BP-Board</b>
401h	BP-B. CXD2069, MID
<b>500h</b>	<b>D1 Board</b>
501h	D1-B. CXA8070, Dynamic Converter
502h	D1-B. CXA1875, Port Expander
<b>600h</b>	<b>E-Board</b>
601h	E-B. CXD2100, Backend
<b>700h</b>	<b>J-Board</b>
701h	J-B. CXD2057, Auto Wide
702h	J-B. SDA9288, PIP
703h	J-B. Sub Colour Decoder TDA9320 or CXA2123
704h	J-B. Main Colour Decoder TDA9320 or CXA2123
705h	J-B. CXA1875, Sub-Sound
706h	J-B. TDA7309, HP-Amplifier
707h	J-B. TEA6422DT, Audio Switch
708h	J-B. MSP3410D, Sound Processor
709h	J-B. TC9337F, Sound DSP
70Ah	J-B. CXA21X9, AV Switch
<b>800h</b>	<b>M-Board</b>
801h	M-B. ST24C32, NVM

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### CAUTION

**SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.**

### WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS, THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

### SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED  $\Delta$  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

### ATTENTION

**APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.**

### ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

### ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  $\Delta$  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÉCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

The operating instructions mentioned here are partial abstracts from the 'Operating Instruction Manual'. The page numbers of the 'Operating Instruction Manual' remain as in the manual.

## Operation

### Using the TV menu system

The TV consists of a menu system which is based on a series of user friendly on-screen displays and menus. These displays will help you get the most from your TV, helping you to change picture and sound settings, to alter the size of the TV picture and to rearrange the TV channels etc.

### Adjusting the picture and sound

**i** Picture and sound are adjusted at the factory. You can however, adjust them individually.

- 1 Press MENU.  
Select the symbol for Picture or for Sound using  $\blacktriangle$  or  $\blacktriangledown$ .  
Push to  $\blacktriangleright$  to enter.

The menu Picture or Sound Control is displayed.

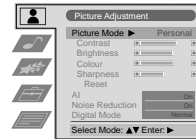
- 2 Select the desired item using  $\blacktriangle$  or  $\blacktriangledown$ . Push to  $\blacktriangleright$  to enter.

- 3 Adjust the selected item using  $\blacktriangle$ ,  $\blacktriangledown$ ,  $\blacktriangleright$  and  $\blacktriangleleft$ . Press OK to store.

**i** Refer to the tables on this and the following page for more information.

- 4 Repeat steps 2 and 3 to adjust other items.

- 5 Press MENU to return to the normal TV screen.

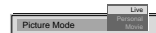


#### Picture Control

Item	Effect/Operation
Picture Mode	$\blacktriangledown$ Live (for live broadcasts) Personal (for individual settings) $\blacktriangle$ Movie (for movie broadcasts)
Contrast	Less $\blacktriangleleft$ $\blacktriangleright$ More
Brightness*	Darker $\blacktriangleleft$ $\blacktriangleright$ Brighter
Colour*	Less $\blacktriangleleft$ $\blacktriangleright$ More
Hue**	Reddish $\blacktriangleleft$ $\blacktriangleright$ Greenish
Sharpness*	Softer $\blacktriangleleft$ $\blacktriangleright$ Sharper
Reset	Resets picture to the factory preset levels
AI (Artificial Intelligence)	$\blacktriangle$ Off: normal $\blacktriangledown$ On: Automatic optimization of contrast level according to the TV signal
Noise Reduction	$\blacktriangle$ Off: Normal $\blacktriangledown$ On: Reduces picture noise in case of a weak broadcasting signal
Digital Mode	$\blacktriangledown$ Normal: 100 Hz. Digital+: 100 Hz plus line flicker reduction $\blacktriangle$ Advanced: Digital+ plus smoothing of motions

\* Only if Personal is selected in Picture Mode

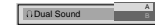
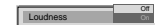
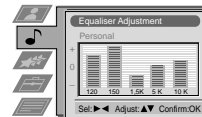
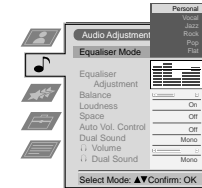
\*\* Only available for NTSC colour signal (e.g. US video tapes)




#### Operation (TV menu system):

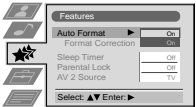
### Sound Control







Item	Effect/Operation
Equaliser mode	Select between the following sound settings $\blacktriangledown$ Personal Vocal Jazz Rock Pop $\blacktriangle$ Flat (fixed setting, cannot be adjusted)
Equaliser adjustment	<b>i</b> You can adjust the mode selected in Equaliser mode by cutting and boosting of 5 selected frequency bands. <b>A</b> Only the changes made in Personal can be stored, the others return to factory setting. • Select the desired bar using $\blacktriangleright$ or $\blacktriangleleft$ , adjust using $\blacktriangle$ and $\blacktriangledown$ . Press OK to store.
Balance	$\blacktriangleright$ More right $\blacktriangleleft$ More left
Loudness	$\blacktriangledown$ Off: Normal $\blacktriangle$ On: For music broadcasts
Space	$\blacktriangledown$ Off: Normal $\blacktriangle$ On: Special acoustic effect
Auto Volume Control	$\blacktriangle$ On: volume level of the channels will stay the same independent of the broadcast signal (e.g. in case of advertisements) $\blacktriangledown$ Off: volume level changes according to the broadcast signal
Dual Sound	For a bilingual broadcast: $\blacktriangledown$ A for channel 1 $\blacktriangle$ B for channel 2 For a stereo broadcast: $\blacktriangledown$ Mono $\blacktriangle$ Stereo <b>i</b> In case of a NICAM stereo broadcast the indication NICAM appears briefly on the screen.
Headphones	
$\odot$ Volume	Less $\blacktriangleleft$ $\blacktriangleright$ More
$\odot$ Dual Sound	For a bilingual broadcast: $\blacktriangledown$ A for channel 1 $\blacktriangle$ B for channel 2

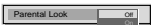


Using the Features menu




- 1 Press the MENU button on the remote control. Select the symbol  using **▼**. Push to **►** to enter.
- 2 Select the desired menu item using **▼**. Push to **►** to enter.
- 3 Select the desired setting using **▲** or **▼**.
- 4 Store by pressing OK.
- 5 Press MENU to return to the normal TV screen.



Features	
Item	Effect/Operation
Auto Format* *only for aerial signal	<div>▲ Off: Size of picture does not automatically adjust.</div> <div>Normal: Size of picture automatically adjusts according to information from broadcaster.</div> <div>▼ Full: The TV can automatically adjust the picture size to eliminate any dark areas on the TV picture (as shown below):</div> <div></div>
Format Correction*	<div>▲ On: Smart mode is selected automatically for 4:3/14:9 broadcasts</div> <div>▼ Off: 4:3/14:9 is selected</div>
Sleep Timer	<div> You can select a time period after which the TV switches itself into standby mode</div> <div>▲ Off</div> <div>10 min.</div> <div>20 min.</div> <div>⋮</div> <div>▼ 90 min.</div>
Parental Lock	<div>▲ Off: Normal mode</div> <div>▼ On: TV can only be switched out of standby-mode using the Remote Commander, the buttons on the TV do not work.</div>
AV2 Source	<div> You can select the source to be output from the Scart connector  2/  2. In this way you can record from this socket while watching another source.</div> <div>▲ TV audio/video signal from the aerial </div> <div>AV1 audio/video signal from Scart 1</div> <div>AV2 audio/video signal from Scart 2</div> <div>▼ AV3 audio/video signal from connectors on top or bottom of rear of TV.</div>



Changing the screen mode

-  When Auto Format in the Features menu is preset to “Normal” or “Full”, the TV set automatically selects the detected screen format. Screen mode, however, lets you select the screen format of your choice.
- Press the  button on the remote control repeatedly to get one of the following formats:
  - Smart imitation of wide screen effect for 4:3 broadcasts, parts of the top and bottom of the picture are cut off
  - 4:3 conventional 4:3 aspect ratio, full picture information
  - 14:9 compromise between 4:3 and 16:9 aspect ratios
  - Zoom imitation of wide screen effect for letterboxed movies
  - Wide for 16:9 broadcasts
-  In Zoom, Smart and 14:9 modes parts of the top and the bottom of the screen are cut off. Using **▲** and **▼** you can adjust the position of the image onscreen to e.g. read subtitles. Press OK to confirm.



Smart




Zoom

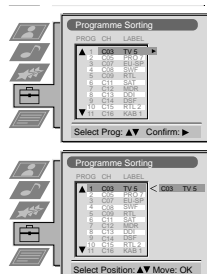


Wide


## Operation (TV menu system):

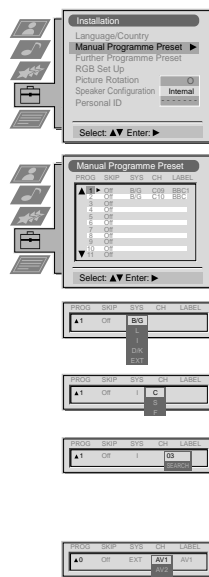
### Sorting TV channels

- i** After tuning in TV channels, you may wish to rearrange the order of the channels.
- 1 Press the MENU button on your remote control. Select the symbol  using ▼. Push to ► to enter.
  - 2 Select Programme Sorting using ▼. Push to ► to enter.
  - 3 Select the programme position of the channel you wish to sort using ▲ or ▼. Push to ► to enter.
  - 4 Move the channel to the new programme position using ▲ or ▼. Store by pressing OK. The channel is now at the new position. The other programme positions move accordingly.
  - 5 To sort other programme positions repeat steps 3 to 4.
  - 6 Press MENU to return to the normal TV screen.



### Manually tuning-in channels


- i** Use this function to preset channels or a video input source one by one to programme positions of your choice.
- 1 Press the MENU button on the remote control. Select the symbol  using ▼. Push to ► to enter.
  - 2 Select Installation using ▼. Push to ► to enter. Select Manual Programme Preset using ▼. Push to ► to enter.
  - 3 Select the programme position by pushing to ▲ or ▼. Push twice to ►. The column SYS is highlighted.
  - 4 Select the TV system using ▲ or ▼. Push to ► to enter.
- i** Available TV systems are I for Ireland or EXT for a video input source (please go to step 5c after selecting EXT).
- 5 Select your method for the channel tuning using ▲ or ▼. Push to ► to enter. You have the choice between C for a terrestrial channel, S for a cable channel or F for direct frequency input.
- 6a Direct Channel Input**
- i** For channel numbers input a two digit number, for the channel frequency a three digit number.
- Select the two or three digits by using the number buttons 0 to 9.
  - To start the search and to store the channel, press the OK button.
  - To preset other channels repeat steps 3 to 6a.
- b Channel search (SEARCH)**
- i** Use Search if you do not know the channel number or frequency
- Start the search for the next available channel by pushing to ▼.
  - Store the channel by pressing OK or continue the search by pushing again to ▼.
  - To search for other channels repeat steps 3 to 6b.
- c For video input sources (EXT)**
- Select the Video Input source using ▲ or ▼.
  - Store your selection by pressing OK.
  - To allocate other sources repeat steps 3 to 5c.
- 6 Press MENU to return to the normal TV screen.

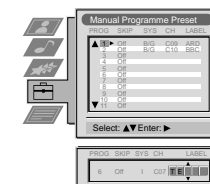


## Operation (TV menu system):

### Naming a channel


- i** During tuning the channels are usually labelled automatically. You can, however, individually name a channel or a video input source.

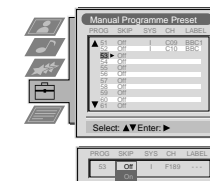
- 1 Press the MENU button on the remote control. Select the symbol  using ▼. Push to ► to enter.
- 2 Select Installation using ▼. Push to ► to enter. Select Manual Programme Preset using ▼. Push to ► to enter.
- 3 Select the programme position of the channel or the video source you wish to label by pushing to ▼ or ▲. Push repeatedly to ► until the first element of the position LABEL is highlighted.
- 4 Select a number, a letter, + or a blank using ▲ or ▼. Push to ► to confirm. Select the other four characters in the same way.
- 5 Store your selection by pressing OK.
- 6 To label other channels or video sources repeat steps 3 to 5.
- 7 Press MENU to return to the normal TV screen.



### Skipping programme positions


- i** In case of 100 programme positions there may be unused positions, which you can skip in the menu »Manual Programme Preset«. When changing channels with the PROG +/- buttons they then do not appear. You can, however, still select them using the number buttons.

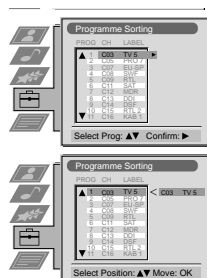
- 1 Press the MENU button on the remote control. Select the symbol  using ▼. Push to ► to enter.
- 2 Select Installation using ▼. Push to ► to enter. Select Manual Programme Preset using ▼. Push to ► to enter.
- 3 Select the programme position you wish to skip by pushing to ▲ or ▼. Push to ► to enter. The column SKIP is highlighted.
- 4 Select ON using ▼.
- 5 Store by pressing OK.
- 6 To skip other programme positions repeat steps 3 to 5.
- 7 Press MENU to return to the normal TV screen.




## Operation (TV menu system):

### Sorting TV channels

- i** After tuning in TV channels, you may wish to rearrange the order of the channels.
- 1 Press the MENU button on your remote control. Select the symbol  using ▼. Push to ► to enter.
- 2 Select Programme Sorting using ▼. Push to ► to enter.
- 3 Select the programme position of the channel you wish to sort using ▲ or ▼. Push to ► to enter.
- 4 Move the channel to the new programme position using ▲ or ▼. Store by pressing OK.  
The channel is now at the new position. The other programme positions move accordingly.
- 5 To sort other programme positions repeat steps 3 to 4.
- 6 Press MENU to return to the normal TV screen.



### Manually tuning-in channels

- i** Use this function to preset channels or a video input source one by one to programme positions of your choice.
- 1 Press the MENU button on the remote control. Select the symbol  using ▼. Push to ► to enter.
- 2 Select Installation using ▼. Push to ► to enter.  
Select Manual Programme Preset using ▼. Push to ► to enter.
- 3 Select the programme position by pushing to ▲ or ▼. Push twice to ►. The column SYS is highlighted.
- 4 Select the TV system using ▲ or ▼. Push to ► to enter.
- i** Available TV systems are I for Ireland or EXT for a video input source (please go to step 5c after selecting EXT).
- 5 Select your method for the channel tuning using ▲ or ▼. Push to ► to enter.  
You have the choice between C for a terrestrial channel, S for a cable channel or F for direct frequency input.

#### 6a Direct Channel Input

- i** For channel numbers input a two digit number, for the channel frequency a three digit number.

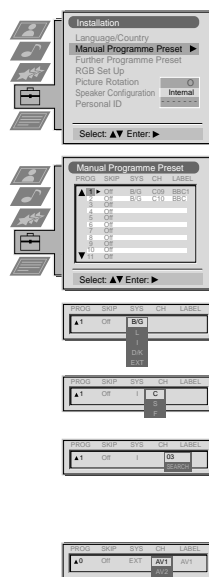
- Select the two or three digits by using the number buttons 0 to 9.
- To start the search and to store the channel, press the OK button.
- To preset other channels repeat steps 3 to 6a.

#### b Channel search (SEARCH)

- i** Use Search if you do not know the channel number or frequency
- Start the search for the next available channel by pushing to ▼.
- Store the channel by pressing OK or continue the search by pushing again to ▼.
- To search for other channels repeat steps 3 to 6b.

#### c For video input sources (EXT)


- Select the Video Input source using ▲ or ▼.
- Store your selection by pressing OK.
- To allocate other sources repeat steps 3 to 5c.
- 6 Press MENU to return to the normal TV screen.

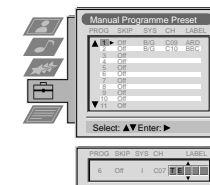


## Operation (TV menu system):

### Naming a channel


- i** During tuning the channels are usually labelled automatically.  
You can, however, individually name a channel or a video input source.

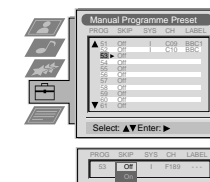
- 1 Press the MENU button on the remote control. Select the symbol  using ▼. Push to ► to enter.
- 2 Select Installation using ▼. Push to ► to enter.  
Select Manual Programme Preset using ▼. Push to ► to enter.
- 3 Select the programme position of the channel or the video source you wish to label by pushing to ▼ or ▲. Push repeatedly to ► until the first element of the position LABEL is highlighted.
- 4 Select a number, a letter, + or a blank using ▲ or ▼. Push to ► to confirm.  
Select the other four characters in the same way.
- 5 Store your selection by pressing OK.
- 6 To label other channels or video sources repeat steps 3 to 5.
- 7 Press MENU to return to the normal TV screen.



### Skipping programme positions

- i** In case of 100 programme positions there may be unused positions, which you can skip in the menu »Manual Programme Preset«. When changing channels with the PROGR +/- buttons they then do not appear.  
You can, however, still select them using the number buttons.


- 1 Press the MENU button on the remote control. Select the symbol  using ▼. Push to ► to enter.
- 2 Select Installation using ▼. Push to ► to enter.  
Select Manual Programme Preset using ▼. Push to ► to enter.
- 3 Select the programme position you wish to skip by pushing to ▲ or ▼. Push to ► to enter.  
The column SKIP is highlighted.
- 4 Select ON using ▼.
- 5 Store by pressing OK.
- 6 To skip other programme positions repeat steps 3 to 5.
- 7 Press MENU to return to the normal TV screen.

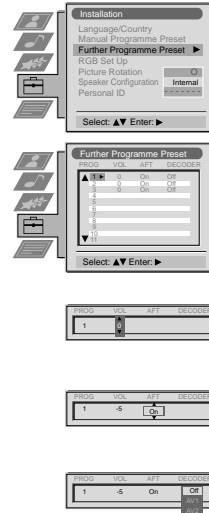







## Operation (TV menu system):

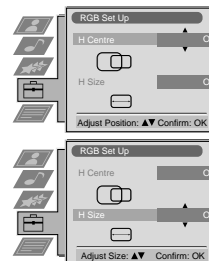
### Using the Further Programme Preset function

- i** Using the menu Further Programme Preset you can
- individually adjust the volume level of each channel.
  - improve the quality of a weak channel (picture or sound distortions) with manual fine tuning.
  - preset the AV output for programme positions of those channels with scrambled signals (e.g. from a Pay TV decoder). In this way a connected Smartlink VCR records the unscrambled signal.
- Press MENU. Select the symbol  using **▼**. Push to **►** to enter.
  - Select Installation using **▼**. Push to **►** to enter. Select Further Programme Preset using **▼**. Push to **►** to enter.
  - Select the programme position of the desired channel by pushing to **▲** or **▼**. Push repeatedly to **►** to select: VOL (Volume Offset), AFT (Automatic Fine Tuning) or DECODER. The selected item changes colour.
  - a VOL**  
Push to **▲** or **▼** to adjust the volume level (range -7 to +7) of the channel. Store by pressing OK.  
Repeat steps 3 and 4a if you wish to adjust the volume level of other channels.
  - b AFT**  
Push to **▲** or **▼** to fine tune the channel (range -15 to +15). Store by pressing OK.  
Repeat steps 3 and 4b if you wish to fine tune other channels.
  - c DECODER**  
Push to **▲** or **▼** to select AV1 (Euro AV socket 1) or AV2 (Euro AV socket 2) as output for the video source on this programme position. Store by pressing OK.  
Repeat steps 3 and 4c if you wish to preset the AV output of other video sources.
- A** Should you use Auto Tuning afterwards, this setting will be cancelled.
- Press MENU to return to the normal TV screen.



### Adjusting the picture geometry for an RGB source

- i** When connecting an RGB source such as a Sony playstation you may need to readjust the picture geometry.
- Select the connected RGB source  1 by pressing  repeatedly.
  - Press MENU. Select the symbol  using **▼**. Push to **►** to enter.
  - Select Installation using **▼**. Push to **►** to enter. Select RGB Set Up using **▼**. Push to **►** to enter.
  - Select H Centre by pushing to **►**. Adjust the centre of the picture (range from -10 to +10) using **▲** or **▼**. Store by pressing OK.
  - Select H Size using **▼**. Push to **►** to enter. Adjust the horizontal coordinates (range from -10 to +10) using **▲** or **▼**. Store by pressing OK.
  - Press MENU to return to the normal TV screen.




## Optional Equipment

### Smartlink

- i** Smartlink is a direct link between your TV set and a VCR.

For Smartlink you need:

- A VCR which supports Smartlink, NexTVView Link, Easy Link or Megalogic.
- A fully-wired 21-pin SCART cable to connect your VCR to Scart  2/-SC2 connector.

The features of Smartlink are:

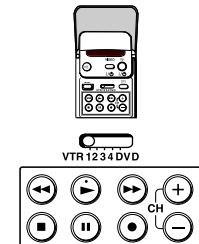
- Tuning information such as the channel overview are downloaded from the TV set to the VCR.
- With NexTVView you can programme your VCR easily.
- Direct TV recording: While watching TV you just need to press just one button on the VCR to record this programme.

- A** For more information on Smartlink please refer to the Instruction Manual of your VCR.

### Remote control of other Sony equipment

- i** Using the buttons underneath the cover of the remote control you can control other Sony equipment.

- Open the cover of the remote control.
- Set the selector VTR 1234 DVD according to the equipment you want to control:  
VTR 1 Beta VCR  
VTR 2 8 mm VCR  
VTR 3 VHS VCR  
VTR 4 Digital Video (DCR-VX 1000/9000 E, VHR-1000)  
DVD Digital Video Disk
- Use the buttons on the remote control to operate the equipment.



- i**
- If your video equipment has a COMMAND MODE selector, set this selector to the same position as the VTR 1234 DVD selector on the TV remote control.
  - If the equipment does not have a certain function, the corresponding button on the remote control does not work.





## Operation

### Teletext

Most TV channels broadcast information via teletext. The index page of the teletext service (usually page 100) gives you information on how to use the service.

- ⚠ Please use a TV channel with a strong signal, otherwise there may be Teletext errors.

### Switching Teletext on and off



- 1 Select the TV channel which carries the teletext service you want to view.
- 2 a Press the  button once on your remote control to switch Teletext on.  
b Press  again for Mix mode.
- 3 The TV broadcast and the Teletext display are overlapped.
- 3 Press  or press  a third time to switch teletext off.

### Selecting a Teletext Page



Input the three digits of the page number using the number buttons on your remote control.

- ⓘ If you have made a mistake:  
Type in any three digits, then re-enter the correct page number.


#### Page Catching

- 1 Using the number buttons on the remote control, select a teletext page which has several page numbers on it (e.g. the index page).
- 2 Press the OK button.
- 3 Page Catching is displayed.
- 3 Select the desired page number using  or  then press the OK button.
- 3 The requested page is displayed after some seconds.




#### Selecting the next or the preceding page

- Press  (Page +) or  (Page -).



#### Selecting the index page

- Press .

#### Selecting a subpage

- ⓘ A teletext page may consist of several subpages. In this case an information line is displayed, showing the number of subpages.
- Select the mode by pushing to . Select the subpage by using  or .

#### Freezing a Teletext subpage

- 1 Press  to freeze the Teletext page.
- 2 Press  to resume normal teletext reception.

#### Using Fastext\*

\*depending on availability of service

- ⓘ Fastext lets you access pages with one button stroke. When Fastext is broadcast, a colour-coded menu appears at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the remote control.
- Press the coloured button which corresponds to the colour in the colour-coded menu.






## Operation



### Using the Teletext menu




- ⓘ This TV set has a menu-guided teletext system. When teletext is switched on you can use the joystick buttons to operate the teletext menu.

Select the menu functions as follows:

- 1 Press the MENU button on the remote control to display the Teletext menu.
- 2 Select the teletext function using  or . Push to  to enter.

#### Top/Bottom/Full



- ⓘ For convenient reading of a Teletext page you can enlarge it.  
After having selected the function, a sub menu Top  Bottom  Full OK is displayed.

- Push to  to enlarge the upper half of the screen, push to  to enlarge the lower half. Press OK to resume the normal size. Press  to resume the normal Teletext operation.




Top:  Bottom:  Full: OK

#### Text Clear

- ⓘ After having selected the function, you can watch a TV channel while waiting for a requested Teletext page. As soon as the page is available, the symbol  changes colour.
- Press  to view the page.



#### Reveal




- ⓘ Some teletext pages contain hidden information (e.g., for a quiz), which you can reveal.
- ⌨ After having selected the function, the hidden information appears.
- Press  to resume the normal Teletext operation.

#### Time Page\*

\*depending on availability of service

- ⓘ You can call up a time-coded page - such as an alarm page - at a time specified by you.

⌨ After having selected the function a sub menu is displayed.

- 1 Select On using  or . Push to  to enter.
- 2 Enter the three digits of the desired page using the number buttons.
- 3 Enter the four digits of the desired time using the number buttons.
- 4 Press OK to store.
- ⌨ The time is displayed in the top left-hand corner of the screen.  
At the requested time the page is displayed.



## Additional Information

### Specifications

<b>Television system</b>	B/G/H, D/K, I, L	<b>Sound output</b>	Right and left speaker 2 x 25W (music power), 2 x 15W (RMS)
<b>Colour system</b>	PAL, SECAM, NTSC 3.58/4.43 (via Video In)	<b>Power consumption</b>	KV-28FC60/28FC60-Z: 132 W KV-32FC60/32FC60-Z: 130 W
<b>Channel coverage</b>	See Channel Guide on next page	<b>Dimensions</b>	KV-28FC60/32FC60-Z 772(w) x 497(h) x 533(d) mm KV-32FC60/32FC60-Z 867(w) x 564(h) x 558(d) mm
<b>Picture tube</b>	FD Trinitron  KV-28FC60/28FC60-Z Approx. 71 cm (28 inches) Approx. 66 cm picture measured diagonally 102° deflection  KV-32FC60/32FC60-Z Approx. 82 cm (32 inches) Approx. 76 cm picture measured diagonally 102° deflection	<b>Weight</b>	KV-28FC60/28FC60-Z Approx. 42.5 kg KV-32FC60/32FC60-Z Approx. 65 kg
<b>Sockets (Rear)</b>	<p>①/②: 21-pin scart connector input of audio/video or RGB signals output of TV signals</p> <p>③/④: 21-pin scart connector input of audio/video or S-video signals selectable output of audio/video signals</p> <p>⑤/⑥: 21-pin scart connector input of audio/video or S-video signals output of audio/video signals (monitor out)</p> <p>⑦ L/G/S/I RCA-connectors, R/D/D/D variable output for audio signals</p> <p>External speaker terminals: 2-pin DIN (2)</p> <p>⑧ 3 : 4-pin DIN input of S-video signals</p> <p>⑨ 3 Phono jack input of video signals</p> <p>≤ 3 Phono jacks input of audio signals</p>	<b>Accessoires supplied</b>	1 Remote Control RM-892 2 Batteries 1 Instruction Manual
<b>Sockets (Front)</b>	⑩ Headphones jack -stereo minijack	<b>Other Features</b>	Flat display Trinitron tube, digital noise reduction, 100 Hz picture, graphic equaliser, personal ID, sleep timer, NextView, NICAM stereo, Digital Comb Filter

### Additional Information

### Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	<ul style="list-style-type: none"> <li>Plug the TV in.</li> <li>Press ① on the TV. (If ① indicator is on, press □ , PROGR+/- or one of the numbered buttons on the remote control.)</li> <li>Check the aerial connection.</li> <li>Check if the selected video source is on.</li> <li>Turn the TV off for 3 or 4 seconds and then turn it on again using ① .</li> </ul>
Poor or no picture (screen is dark), but good sound	<ul style="list-style-type: none"> <li>Press MENU. Select [ ] and adjust Brightness, Contrast and Colour.</li> </ul>
Good picture, but poor or no sound	<ul style="list-style-type: none"> <li>Press ⏮ + .</li> <li>If ① is displayed on the screen, press ① button.</li> </ul>
No colour for colour programmes	<ul style="list-style-type: none"> <li>Open the cover of the remote control. Press *** button.</li> </ul>
Remote control does not function	<ul style="list-style-type: none"> <li>Replace the batteries.</li> </ul>
Control Panel does not function	<ul style="list-style-type: none"> <li>Make sure Parental lock is Off.</li> </ul>

**Note:** As with some other electrical appliances under certain circumstances there is potential for small electrostatic discharge to occur.

If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

### Channel Guide

TV System	Receivable Channels	Channel Display
B/G/H	E2 .. 12, 21 .. 69	C02 C03 C04 .. C12 C21 .. C69
TV Cable (1)	S1 .. 41	S01 S02 .. S41
TV Cable (2)	S01 .. S05, M1 .. M10, U1 .. U10	S42 .. S46 S01 .. S10 S11 .. S20
Italy	A B C D E F G H H1 H2, 21 .. 69	C13 C14 C15 C16 C17 C18 C19 C20 C11 C12, C21-C69
D/K	R01 .. R12, R21 .. R69	C01 .. C12 C21 .. C69
TV Cable (1)		S01 S02 .. S41
TV Cable (2)		S42 S43 .. S46
TV Cable	B .. Q*, S21 .. F41	S02, S03 .. S17, S21 .. S41
L	F2 .. F10 F21 .. F69	C01 .. C12, C21 .. C69
I	B21 .. B68	C21 .. C68

\* If channels B..Q are available, the display S02-S17 will appear on the screen.

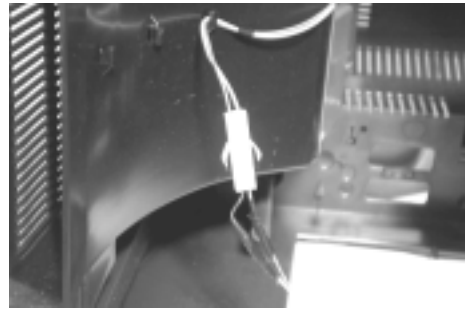
## SECTION 2 DISASSEMBLY

### 2-1. Rear Cover Removal



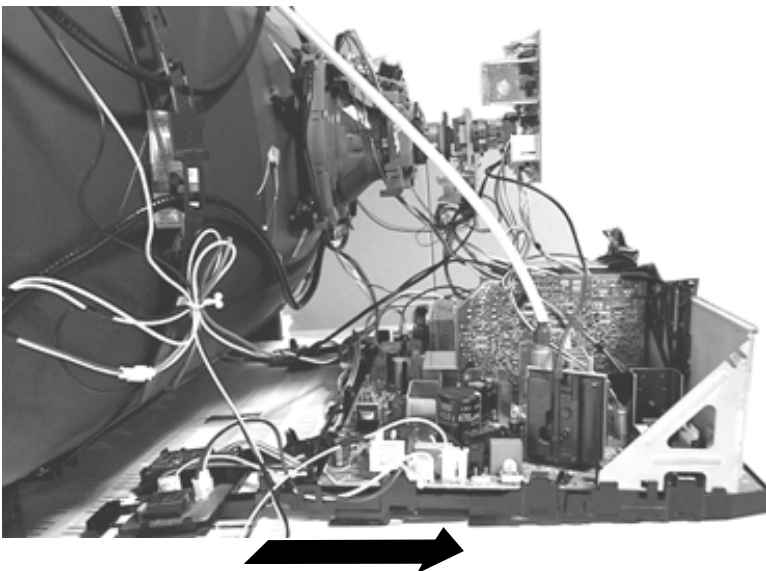
Remove the rear cover fixing screws indicated. Take care when removing the rear cover not to damage the speaker cables [Disconnect the speaker connector] as speakers are fitted inside the rear cover.

### 2-2. Speaker Connector Disconnection

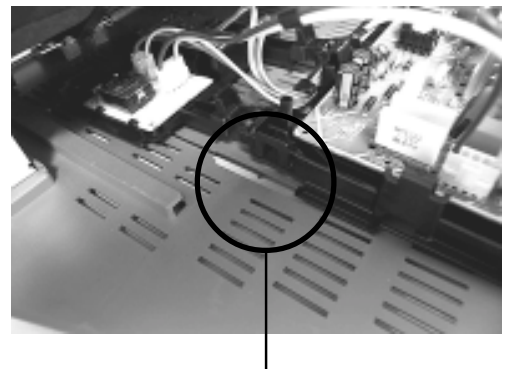


Before completely removing the rear cover disconnect the speaker connector.

### 2-3. Chassis Removal and Refitting

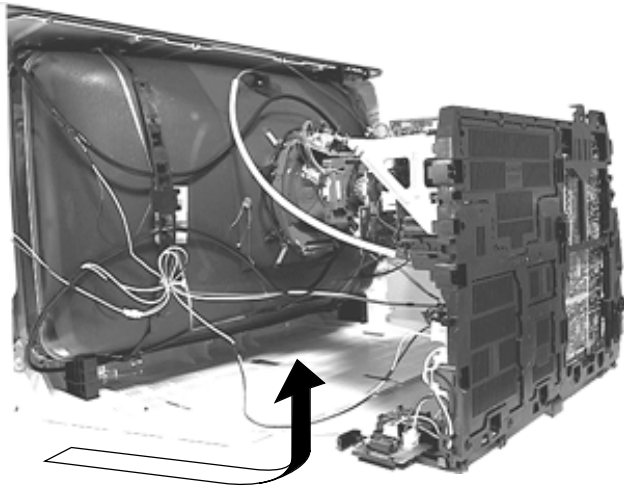


To remove lift the main bracket rear slightly and slide the chassis away from the beznet. Ensure that the interconnecting leads are released from their purse locks to prevent damage being caused.



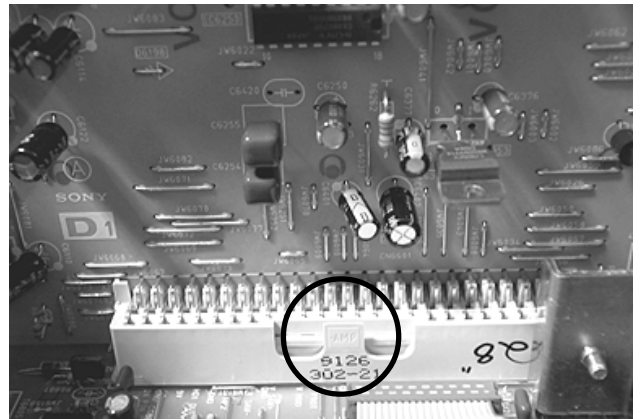
When refitting the chassis ensure that the main bracket is located in the beznet guide slots before sliding the chassis forwards. Refit the interconnecting leads in their respective purse locks.

## 2-4. Service Position



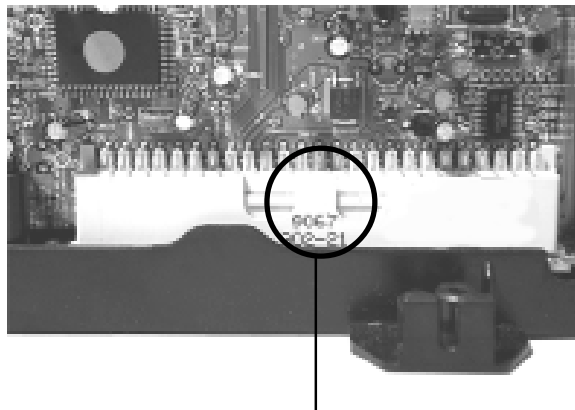
Position the PWB as indicated to access the solder side.  
To gain access to the D Board follow the instructions on page 19. [Removal and Replacement of the main bracket bottom plates ].

## 2-5. D1 Board Removal



To remove the D1 Board release the clip circled and gently remove the board in a vertical direction.

## 2-6. J Board Removal



Release the clip and carefully remove the board in a vertical direction.

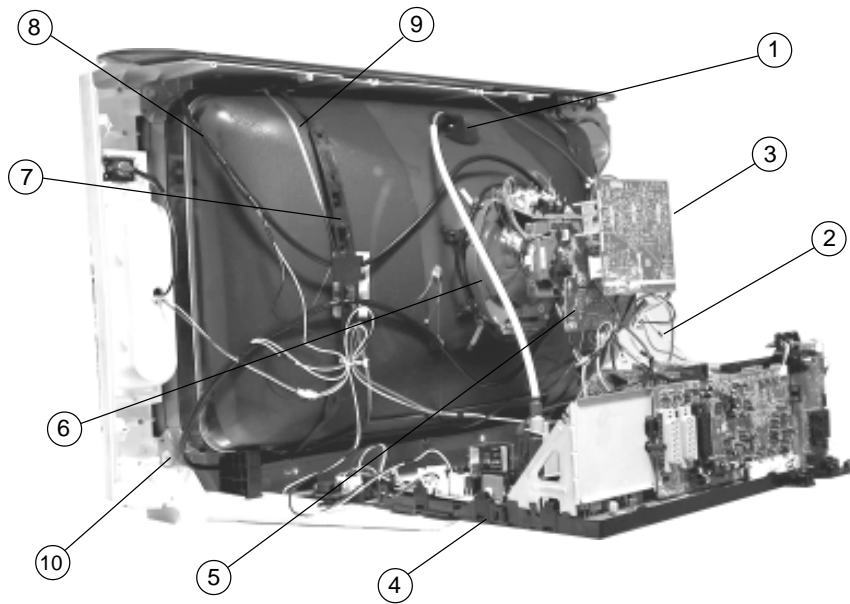
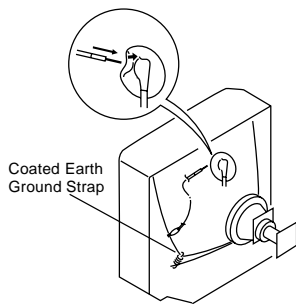
### Note :

Removal of the B1, E, M, and U printed circuit boards follows the same procedure of releasing the securing clips as indicated in the figs for D1 and J board removal.  
Take care not to apply to great a pressure to the clips as this may cause damage.

## 2-7. Picture Tube Removal

### WARNING: BEFORE REMOVING THE ANODE CAP

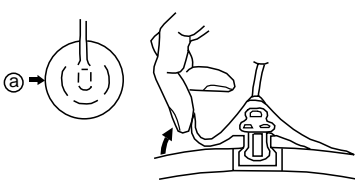
High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT **before** attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.



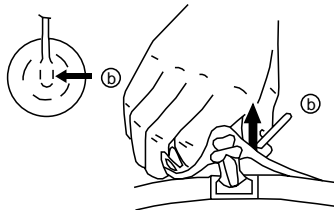
1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the Deflection yoke, neck assy, degaussing coils and CRT grounding strap.
3. Remove the C Board from the CRT.
4. Remove the chassis assembly.
5. Loosen the Neck assembly fixing screw and remove.
6. Loosen the Deflection yoke fixing screw and remove.
7. Place the set with the CRT face down on a cushion and remove the Degaussing Coil holders.
8. Remove the Degaussing Coils.
9. Remove the CRT grounding strap and spring tensioners.
10. Unscrew the four CRT fixing screws [ located on each CRT corner ] and remove the CRT.  
[Take care not to handle the CRT by the neck.]

## Removal of the Anode-Cap

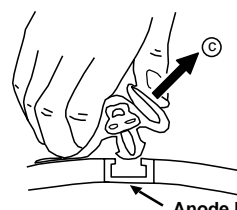
### \* REMOVING PROCEDURES.



- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a)



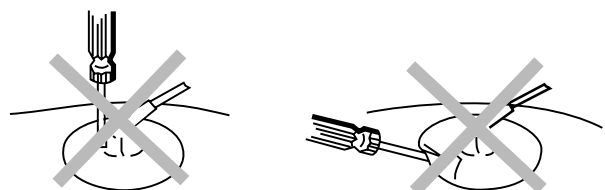
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b)



- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c)

### How to handle the Anode-Cap

1. To prevent damaging the surface of the anode-cap do not use sharp materials.
2. Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
3. A metal fitting called a shatter hook terminal is fitted inside the rubber cap. Do not turn the rubber foot over excessively, this may cause damage if the shatter hook sticks out.

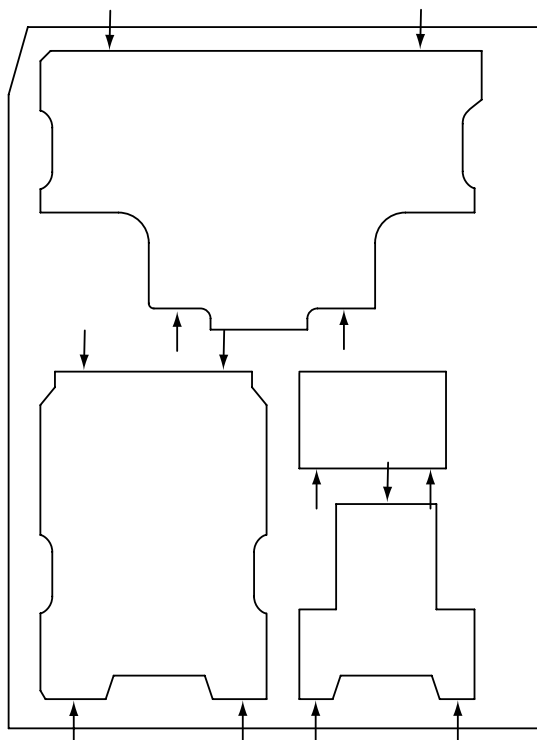


## REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

### (1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the D Board printed wiring board, the bottom plates fitted to the main chassis bracket require to be removed. This is performed by cutting the gates with a sharp wire cutter at the locations indicated by the arrows.

**Note :** There are 4 plates fitted to the main bracket and secured by 4 gates.  
Only remove the necessary plate to gain access to the printed wiring board.

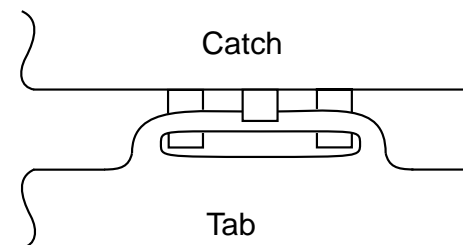


For safety reasons, on no account should the plates be removed and not refitted after servicing.

### (2) REFITTING THE PLATES

Because the plates differ in size it is important that the correct plates are refitted in their original location.

Please note that the plates need to be rotated 180 degrees from their cut position to allow the tabs to be fitted into their catch positions.



## SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings :

Contrast ..... normal

Brightness ..... normal

**Carry out the adjustments in the following order :**

- 3-1. Beam Landing.
- 3-2. Convergence.
- 3-3. Focus.
- 3-4. White Balance.

**Note :** Test equipment required.

1. Color bar/pattern generator.
2. Degausser.
3. Oscilloscope.
4. Digital multimeter.

### 3-1. Beam Landing

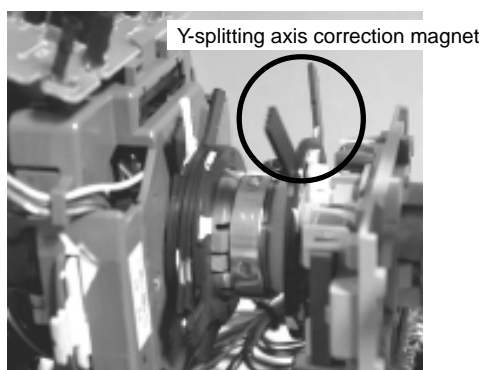
#### Preparation :

1. In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2. Switch on the TV set's power and degauss with a degausser.

#### (1) Adjustment of Correction Magnet for Y-Splitting Axis.

1. Input a crosshatch signal from the pattern generator.
2. Set the Picture control to minimum and confirm that the Brightness control is set to normal.
3. Position the neck assembly as indicated in Fig.3-2.
4. Loosen the deflection yoke fixing screw.
5. Move the deflection yoke as far forward as is possible.
6. Adjust the upper and lower pin symmetrically by opening or closing the Y-splitting axis correction magnets located on the neck assembly.
7. Return the deflection yoke to its original position and re-tighten its fixing screw.

**Fig.3-1**



#### Caution :

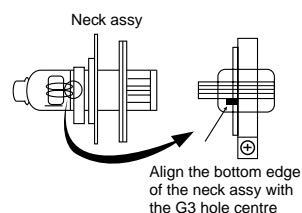
High voltages are present on the Deflection yoke terminals - take care when handling the Deflection yoke whilst carrying out adjustments.

#### (2) Landing

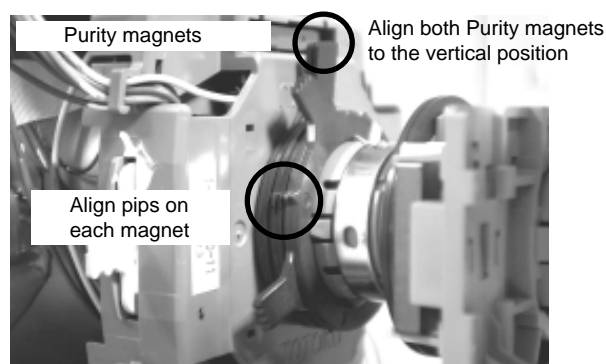
**Note :** Before carrying out the following adjustments adjust the magnets as indicated below [See Fig.3-3].

1. Input an all-white signal from the pattern generator. Maximize the picture setting and adjust the Brightness setting.
2. Rough-adjust the focus and horizontal convergence.
3. Loosen the deflection yoke screws and align the purity adjustment knob to its central position. [See Fig.3-3].
4. Switch from the all-white pattern to an all-green pattern.
5. Move the deflection yoke backwards and adjust with the purity magnet so that the green is at the centre and it aligns symmetrically [See Fig.3-4].
6. Move the deflection yoke forward and adjust so that the entire screen becomes green.
7. Switch the raster signal to red, then to blue and verify the landing condition.
8. When the position of the deflection yoke has been determined, fasten the deflection yoke with its fixing screw.
9. If the beam does not land correctly in all the corners of the screen, use magnets to correct it.

**Fig.3-2**



**Fig.3-3**





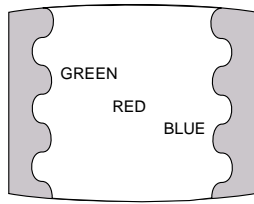
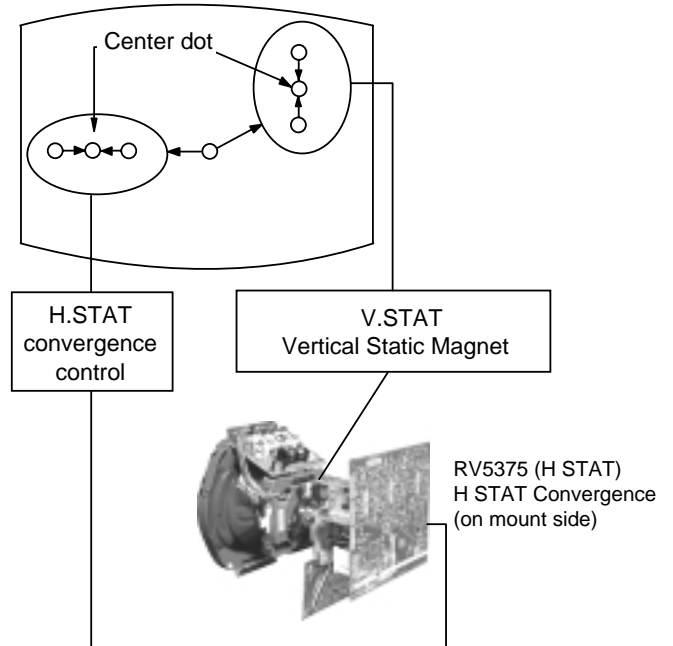
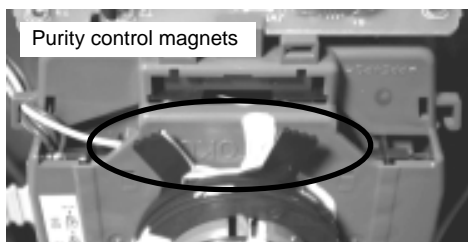
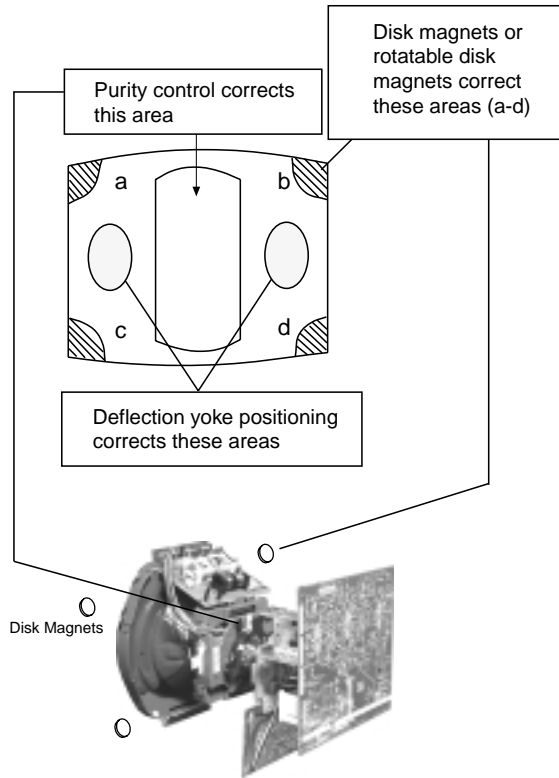
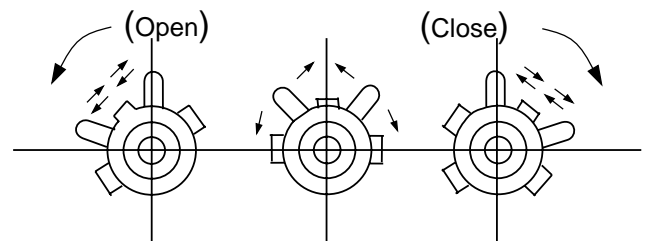


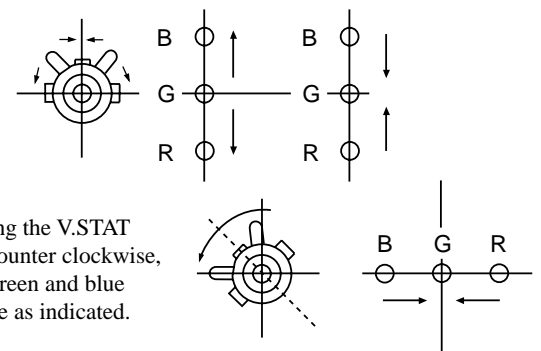
Fig.3-4



- If the horizontal dots are unable to coincide with the variable range of the H. STAT convergence, adjust together with the V. STAT convergence whilst tracking.  
[Adjust the convergence by tilting the V. STAT convergence or by opening and closing the V. STAT convergence.]



4. Movement of the red, green and blue dots by tilting the V. STAT magnet and by opening or closing the V. STAT magnet.
- a). By opening or closing the V. STAT magnet, the red green and blue dots move in the direction indicated below.



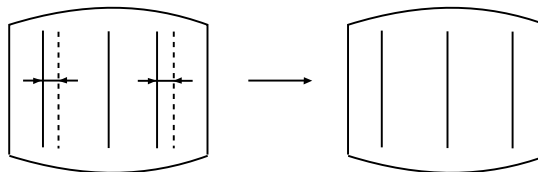
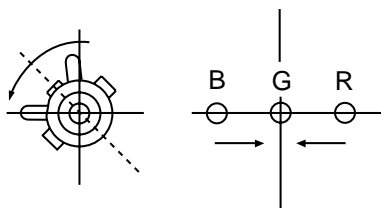
## 3-2. Convergence

### (1) Screen centre convergence [Static convergence]

1. Input a dot pattern signal from the pattern generator.
2. Normalize the picture setting.
3. [Moving horizontally], adjust the H. STAT control so that the horizontal red, green and blue dots coincide at the centre of the screen.
4. [Moving horizontally], adjust the V. STAT magnet so that the vertical red, green and blue dots coincide at the centre of the screen.

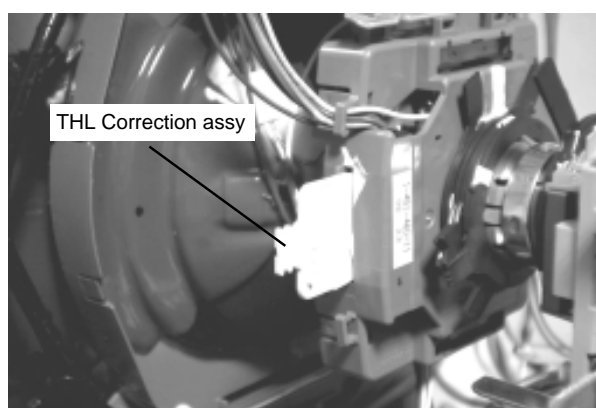
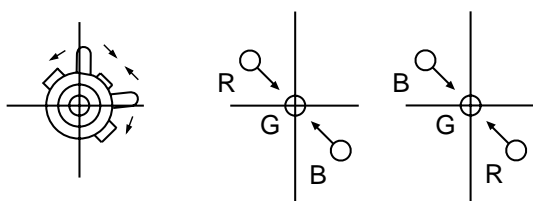
- c). By rotating the V.STAT magnet clockwise, the red, green and blue dots move in the direction indicated below.

## HAMP



- d). By opening or closing the V.STAT magnet, the red green and blue dots move in the direction indicated below.

7. HTIL correction can be performed by adding a THL correction assembly to the Deflection yoke.



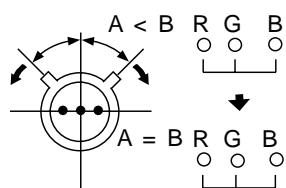
**Note :** If the blue dot does not coincide with the red and green points, correct the points by using the BMC [Hexapole] magnet.

5. Correction for HMC [Horizontal mis-convergence] and VMC [Vertical mis-convergence] by using the BMC [Hexapole] magnet.

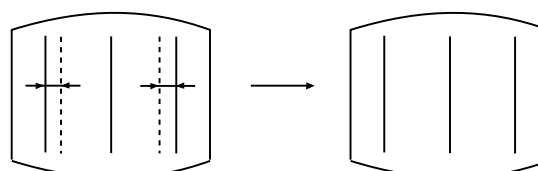
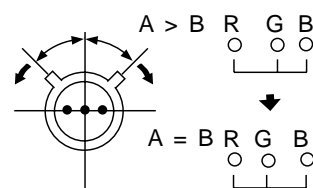
- a). HMC correction by BMC [Hexapole] magnet and movement of the electron beam.

## HTIL

### HMC correction(A)

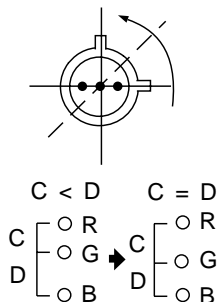


### HMC correction(B)

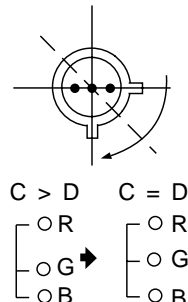


- b). VMC correction by BMC [Hexapole] magnet and movement of the electron beam.

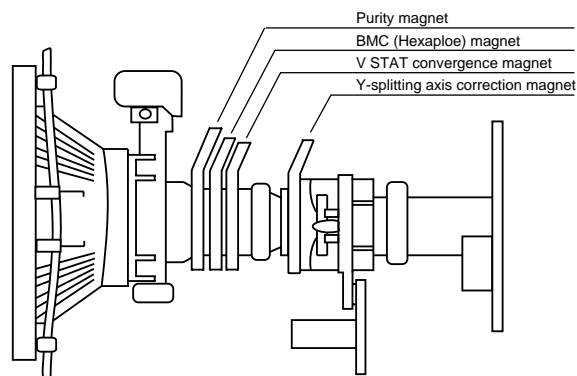
### VMC correction(A)



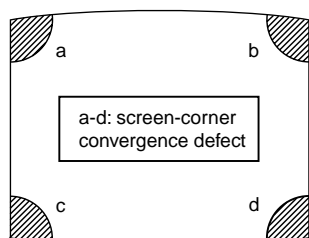
### VMC correction(B)



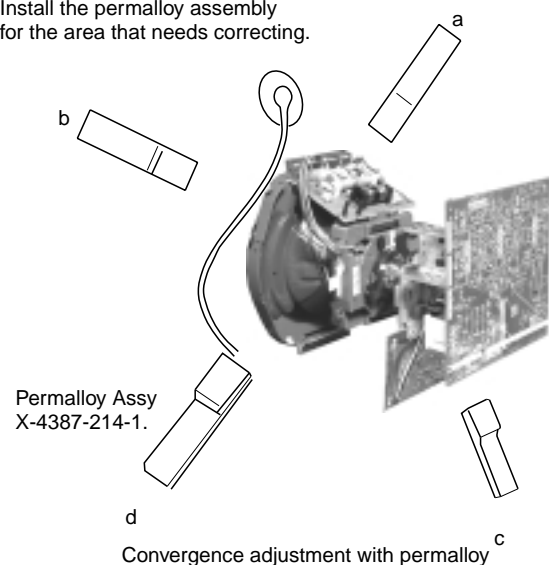
## Layout of each control



**Note :** If you are unable to adjust the corner convergence properly, this can be corrected with the use of permalloy magnets.

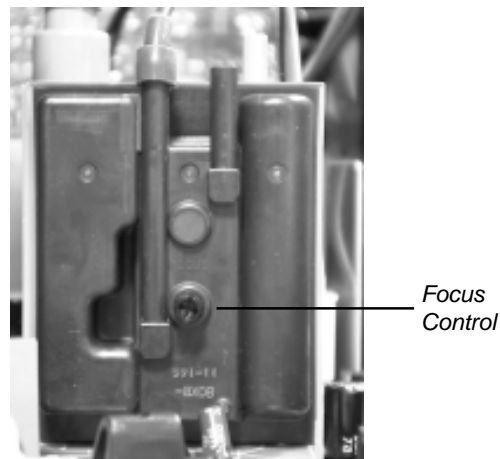


Install the permalloy assembly for the area that needs correcting.



## 3-3. Focus Adjustment

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control located on the flyback transformer to obtain the best focus at the centre of the screen.  
Bring only the centre area of the screen into focus, the magenta-tinge appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



## 3-4. Screen (G2), White Balance

[Adjustment in the service mode using the remote commander]

### G2 adjustment [RV5376]

1. Input a dot signal from the pattern generator.
2. Set the Picture, Brightness and Colour to minimum.
3. Apply 175V DC from an external power supply to the R, G and B cathodes of the CRT.
4. Whilst watching the picture, adjust the G2 control RV5376 [SCREEN] located on the C Board to the point just before the flyback return lines disappear.

### White balance adjustment for TV mode

1. Input an all-white signal from the pattern generator.
2. Enter into the 'Service Mode' by pressing 'TEST', 'TEST' and 'MENU' 'MENU' on the Service Commander.
3. Select 'Backend' from the on screen menu display and press 'OK'.
4. The 'Backend' menu will appear on the screen.[See Page 26]
5. Set the 'Contrast' to MAX.
6. Set the 'R-Drive' to 41.
7. Adjust the 'G-Drive' and the 'B-Drive' so that the white balance becomes optimum.
8. Press the 'OK' button to write the data for each item.
9. Set the 'Contrast' to MIN.
10. Set the 'R-Cutoff' to 31.
11. Adjust the 'G-Cutoff', and the 'B-Cutoff' with the left and right buttons on the remote commander so that the white balance becomes optimum.
12. Press the 'OK' button to write the data for each item.

## SECTION 4 CIRCUIT ADJUSTMENTS

### 4-1. Electrical Adjustments

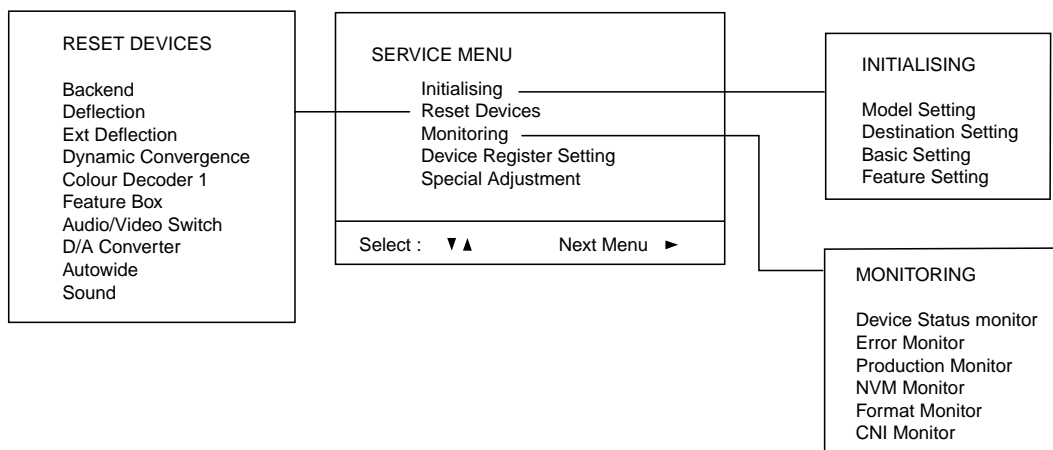
Service adjustments to this model can be performed using the supplied Remote Commander RM-892.

#### How to enter into the Service Mode

1. Turn on the main power switch of the set while pressing PROG + (plus) and PROG - (minus) buttons on the top control panel.



2. 'TT' will appear in the upper right corner of the screen.
3. Press the 'MENU' button twice on the remote commander to obtain the service menu on the screen.



4. Push the joystick up or down on the remote commander to select the adjustment item.
5. Push the right button to proceed to the next menu.
6. If the required adjustment item is 'Deflection', push the down button to move to 'Deflection'.
7. Push the joystick to the right to enter into 'Deflection'.
8. Change the data in order to comply with each standard.

#### Note :

- Before performing any adjustments ensure that the correct model has been selected in the 'Model Setting' menu.
- After carrying out the service adjustments, to prevent the customer accessing the 'Service Menu' switch the TV set OFF and then ON.

## Initialising Menu

Initialising
Model Setting
Destination Setting
Basic Setting
Feature Setting
Select :            Next menu:

## Model Setting

The menu contains a list with all the available models of this software to set up the TV set in an easy way. The selection of a model is setting data for its features and hardware resources which cannot be detected by the automatic power on H/W detection as well as a special *model byte* to get a unique model identification for models which cannot be differed by features and hardware resources (e.g. KV-28FC60 and KV-28FC60Z)

Before data is set, the user will be asked if he really wants to set a new model. If the user agrees, automatically the destination setting menu is shown.

Model Setting		
1	KV-29FX60	Reset
2	KV-29FC60	
3	KV-29FS60	
4	KV-28FX60	
5	KV-32FX60	
6	KV-32FS60	
7	KV-28FC60	
8	KV-32FC60	
9	KV-28FC60Z	
10	KV-32FC60Z	
BLACK = No Conformity		
GREEN = Compatible Model		
RED = Conformity for all data		

Table.4-1

### Indication of Model Compatibility.

#### Black:

If any data does not match to specific model, the model name is displayed in black.

#### Green:

All data which is checked by model setting menu concurs to model except model byte.

#### Red:

All data which is checked by model setting menu concurs to model including model byte.

#### Note:

After selecting a model, it may be necessary to reset some devices to get the correct data. (Treble/Bass Offset of Sound, deflection adjustments, ...)

Basic Setting				
No	Descr	Min	Max	Data
1	Sys B/G	OFF	ON	ON
2	Sys D/K	OFF	ON	ON
3	Sys L	OFF	ON	ON
4	Sys I (UK)	OFF	ON	ON
5	Sys I (IRL)	OFF	ON	OFF
6	Russian Sound	OFF	ON	OFF
7	TXT Nat.Option	1	4	3
8	Simple PAT	OFF	ON	OFF
9	16:9 CRT	OFF	ON	ON
10	SubWoofer	OFF	ON	ON
11	Auto Stand-by	OFF	ON	ON
12	Comb-Filter	OFF	ON	ON
13	Auto YC Det	OFF	ON	ON
14	Auto Comb Det	OFF	ON	ON
15	AV2 Available	OFF	ON	ON
16	AV3 Available	OFF	ON	ON
17	AV4 Available	OFF	ON	OFF
18	AV3 Front & Rear	OFF	ON	ON
19	SECAM Tape	OFF	ON	ON
20	AV1 Sound Mute	OFF	ON	OFF

Table.4-2

Dynamic Convergence					
No	Descr	Def	Min	Max	Data
1	Range	63	0	63	63
2	H Stat	33	0	63	33
3	H-Amp L	37	0	63	37
4	H-Amp R	36	0	63	36
5	Up Y	31	0	63	31
6	Low Y	33	0	63	33
7	Y up L	30	0	63	30
8	Y up R	30	0	63	30
9	Y low L	31	0	63	31
10	Y low R	30	0	63	30
11	M bow up L	31	0	63	31
12	M bow up R	32	0	63	32
13	M bow low L	32	0	63	32
14	M bow low R	32	0	63	32
15	V Stat	32	0	63	32
16	T Cor PCtrl	OFF	OFF	ON	OFF
17	Top Cor Pin	31	0	63	31
18	B Cor PCtrl	OFF	OFF	ON	ON
19	Bot Cor Pin	31	0	63	32

Table.4-3

Feature Setting				
No	Descr	Def	Max	Data
1	EPG	OFF	ON	ON

Table.4-4

Backend					
No	Descr	Def	Min	Max	Data
1	R-On	ON	OFF	ON	ON
2	G-On	ON	OFF	ON	ON
3	B-On	ON	OFF	ON	ON
4	D-Col	OFF	OFF	ON	OFF
5	Color-Axis	2	0	3	2
6	Contrast	44	0	63	44
7	Limit-Lvl	3	0	3	3
8	Hue	32	0	63	32
9	Colour	31	0	63	31
10	CTI-Level	2	0	3	2
11	Brightness	31	0	63	31
12	Gamma	3	0	3	3
13	Sharpness	44	0	63	41
14	R-Drive	41	0	63	41
15	G-Drive	41	0	63	33
16	B-Drive	41	0	63	24
17	ABL-Mode	0	0	3	0
18	Sub Bright	31	0	63	29
19	VM-Level	2	0	3	2
20	R-Cutoff	31	0	63	31
21	Pre/Over	2	0	3	2
22	G-Cutoff	31	0	63	16
23	DPIC-Level	1	0	3	1
24	B-Cutoff	31	0	63	30
25	DC-Tran	0	0	3	0
26	Sub-Cont	7	0	15	7
27	LRGB2-Lvl	8	0	15	8
28	P-Abl	15	0	15	15
29	Sharp FO	ON	OFF	ON	ON
30	Aging-W	OFF	OFF	ON	OFF
31	Aging-B	OFF	OFF	ON	OFF
32	CB-Offset1	7	0	15	7
33	CR-Offset1	7	0	15	7
34	CB-Offset2	7	0	15	7
36	Sub Colour	0	-8	8	-6

Table.4-5

Ext. Deflection					
No	Descr	Def	Min	Max	Data
1	Linearity	128	0	255	128
2	H Centre	32	0	63	32
3	H Trap	32	0	63	32
4	Rotation	0	0	255	0

Table.4-6

Colour Decoder 1					
No	Descr	Def	Min	Max	Data
1	Tint	31	0	63	31
2	P/N Gw	OFF	OFF	ON	OFF
3	P/N ID	OFF	OFF	ON	OFF
4	Sub Colour	7	0	15	7
5	Sub Contr	7	0	15	7
6	Sharp FO	1	0	3	1
7	Sharp EQ	2	0	3	2
8	Sharp Gain	8	0	15	8
9	Y-Out Lev	35	0	63	35
10	BS Point	0	0	3	0
11	C-Cut Lev	50	0	63	50
12	DC Rest	0	0	3	0
13	BPF FO	2	0	3	2
14	BPF Q	1	0	3	1
15	Filter Sw	OFF	OFF	ON	OFF
16	C-Trap Sw	OFF	OFF	ON	OFF
17	S-D Trap	ON	OFF	ON	ON
18	LPF	ON	OFF	ON	ON
19	Colour Sys	0	0	7	0
20	Y-DL	8	0	10	8
21	N-Comb	ON	OFF	ON	ON
22	Video Sel	0	0	15	0
23	RGB Sel	0	0	3	0
24	Halftone	OFF	OFF	ON	OFF
25	CbCr Mute	OFF	OFF	ON	OFF
26	CrOFF.1	7	0	15	7
27	CbOFF.1	7	0	15	7
28	CrOFF.2	7	0	15	7
29	CbOFF.2	7	0	15	7
30	VCD Freq	3	0	7	3
31	VCD Mode	0	0	3	0
32	AFC SENS	1	0	3	1
33	MVM	OFF	OFF	ON	OFF
34	S-R-Y Adj	7	0	15	7
35	S-B-Y Adj	2	0	15	2
36	BELL/HPF	2	0	3	2
37	BELL FO	OFF	OFF	ON	OFF
38	S-VID	OFF	OFF	ON	OFF
39	S-GP	0	0	3	0
40	S ID	OFF	OFF	ON	OFF
41	S-INHBT	OFF	OFF	ON	OFF
42	RGB1 ENB	OFF	OFF	ON	OFF
43	SETUP-SW	OFF	OFF	ON	OFF
44	KS-PH	1	0	1	1
45	S/N RATIO	3	0	3	3

Table.4-7

Feature High - End					
No	Descr	Def	Min	Max	Data
1	Init	OFF	OFF	ON	OFF
2	HC-Direct	OFF	OFF	ON	OFF
3	Auto HCO	OFF	OFF	ON	OFF
4	Field-Freq	OFF	OFF	ON	OFF
5	Disp-Freq	0	0	3	0
6	Acqu-Freq	1	0	3	1
7	Still Pic	OFF	OFF	ON	OFF
8	Auto Movie	ON	OFF	ON	ON
9	Phase	ON	OFF	ON	ON
10	Movie	OFF	OFF	ON	OFF
11	Nature Mot	ON	OFF	ON	OFF
12	LFR Mode	ON	OFF	ON	ON
13	V-Zoom Sw	OFF	OFF	ON	OFF
14	Sat mode	OFF	OFF	ON	OFF
15	G-Mode	OFF	OFF	ON	OFF
16	S.D.A.F	ON	OFF	ON	ON
17	V-Zoom	0	0	15	0
18	No Feat Md	OFF	OFF	ON	OFF
19	Split Scr	0	0	3	0
20	Noise Reduc	1	0	3	1
21	Set Vd	OFF	OFF	ON	OFF
22	Set Hd	ON	OFF	ON	ON
23	Set Vdmsb	OFF	OFF	ON	OFF
24	Set Hdmsb	ON	OFF	ON	ON
25	Set Hddel	OFF	OFF	ON	OFF
26	Set Vwe2	OFF	OFF	ON	OFF
27	Set Hwe2	OFF	OFF	ON	OFF
28	St Hor Delay	OFF	OFF	ON	OFF
29	Ena Hwe Mdly	ON	OFF	ON	ON
30	Ena Outsel	OFF	OFF	ON	OFF
31	Set Nr	OFF	OFF	ON	OFF
32	EnaHreShft	ON	OFF	ON	ON
33	Vect.Ovl	OFF	OFF	ON	OFF
34	Set Nm	OFF	OFF	ON	OFF
35	F.S.F.M	OFF	OFF	ON	OFF
36	Enable Vwe	OFF	OFF	ON	OFF
37	Vwe	0	0	127	0
38	DispAdjVre	OFF	OFF	ON	OFF
39	V-Capture	OFF	OFF	ON	OFF
40	Panic mode	ON	OFF	ON	ON
41	Panic Ctrl	0	0	31	0
42	P3.5	OFF	OFF	ON	OFF
43	P3.4	OFF	OFF	ON	OFF
44	P1.5	OFF	OFF	ON	OFF
45	P1.3	OFF	OFF	ON	OFF
46	P1.4	OFF	OFF	ON	OFF
47	DisBlkAdj	OFF	OFF	ON	OFF
48	P2.7	OFF	OFF	ON	OFF
49	P2.6	OFF	OFF	ON	OFF
50	P2.5	OFF	OFF	ON	OFF
51	P2.4	OFF	OFF	ON	OFF
52	P2.3	OFF	OFF	ON	OFF
53	P2.2	OFF	OFF	ON	OFF
54	P2.1	OFF	OFF	ON	OFF
55	P2.0	OFF	OFF	ON	OFF
56	Hor Delays	0	0	255	0
57	Hwe2sta	0	0	255	0
58	Hwe2sto	0	0	255	0

Table.4-8

Feature High - End					
No	Descr	Def	Min	Max	Data
59	Vwe2sta	28	0	255	28
60	Vwe2sto	47	0	255	47
61	Hddel	0	0	255	0
62	Hdmsb	0	0	255	0
63	Vdmsb	0	0	255	0
64	Hdsta	0	0	255	0
65	Hdsto	0	0	255	0
66	Vdsta	0	0	255	0
67	Vdsto	0	0	255	0
68	Hwe1Mdelay	35	0	255	44
69	Bad Limit	0	0	255	0
70	ReliaThres	0	0	255	0
71	Movie Min	10	0	255	10
72	VideoCTMax	50	0	255	50
73	Kstep01	0	0	255	0
74	Kstep23	0	0	255	0
75	Kstep45	0	0	255	0
76	Kstep67	0	0	255	0
77	Kfixed	0	0	255	0
78	Tfilter12	0	0	255	0
79	Def	0	0	255	0
80	PicPcs	0	0	3	0
81	HreShift	0	0	255	0

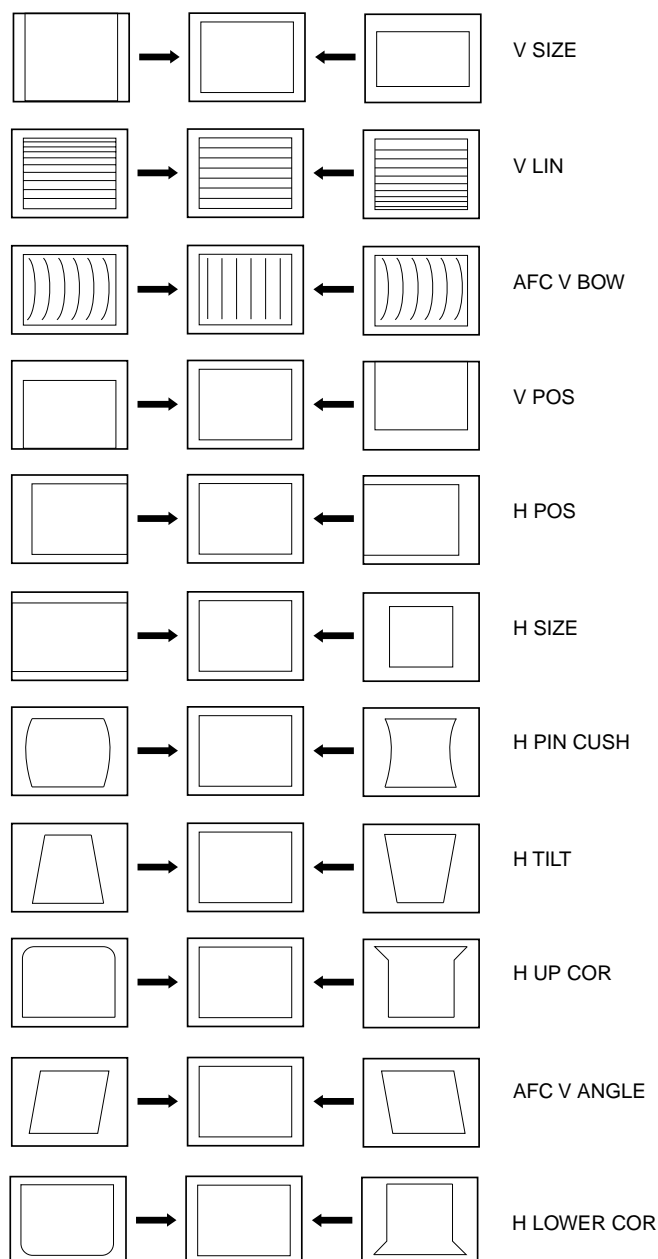
Table.4-9

Audio / Video Switch					
No	Descr	Def	Min	Max	Data
1	CVOUT1	0	0	7	0
2	CVOUT2	0	0	7	0
3	GD1 SW	OFF	OFF	ON	OFF
4	GD2 SW	OFF	OFF	ON	OFF
5	YCOUT 1	0	0	7	0
6	YCOUT 2	0	0	7	0
7	LO0CTRL	OFF	OFF	ON	OFF
8	LO1CTRL	OFF	OFF	ON	OFF
9	AOUT 1	1	0	7	1
10	AOUT 2	1	0	7	1
11	AOUT 3MUTE	OFF	OFF	ON	OFF
12	ZCD SW	ON	OFF	ON	ON
13	AOUT 3	1	0	7	0
14	GROUP	15	0	31	15
15	AOUT3 L/R	0	0	3	0
16	AOUT3VOLF	0	0	7	0
17	AOUT3VOLC	5	0	7	5

Table.4-10

Deflection					
No	Descr	Def	Min	Max	Data
1	V-Size	31	0	63	42
2	V-Position	31	0	63	31
3	V-Comp	1	0	3	1
4	V-Linear	7	0	15	8
5	S-Corr	7	0	15	8
6	H-Size	31	0	63	55
7	EW-DC	OFF	OFF	ON	OFF
8	Akb Tim2	OFF	OFF	ON	OFF
9	Pin-Amp	31	0	63	43
10	H-Comp	0	0	3	0
11	Up-Cpin	31	0	63	31
12	M-Pin	2	0	3	2
13	Lo-CPin	31	0	63	38
14	Trapezium	7	0	15	4
15	H-Position	31	0	63	25
16	VblKw	0	0	3	0
17	AFC-Bow	7	0	15	6
18	AFC-Angle	7	0	15	8
19	Left-Blk	52	0	63	52
20	Right-Blk	11	0	63	11
21	V-Freerun	0	0	3	0
22	V-Aspect	0	0	63	0
23	Zoom-Sw	OFF	OFF	ON	OFF
24	U-Scan	OFF	OFF	ON	OFF
25	V-Scroll	31	0	63	31
26	Akb-Tim	2	0	3	2
27	Up-Vlin	0	0	15	0
28	Lo-Vlin	0	0	15	0
29	MPIP Pamp	-5	-10	10	-1
30	MPIPUCPin	0	-10	10	2
31	MPIPLCPin	0	-10	10	0
32	MPIP Trap	0	-10	10	1
33	EPG Pamp	-3	-10	10	-6
34	EPG UCPin	0	-10	10	-3
35	EPG LCPin	1	-10	10	-1
36	EPG Trap	0	-10	10	-1

Table.4-11



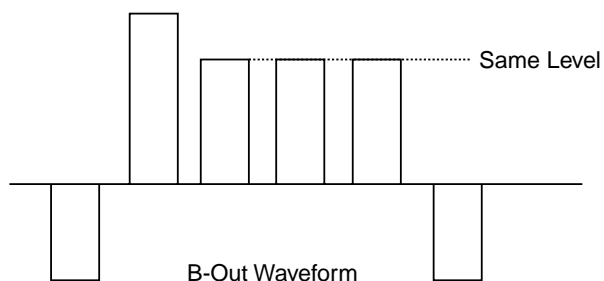
### Deflection System Adjustment

1. Enter into the service mode and select 'Deflection' from the menu. The 'Deflection' adjustment menu will be displayed.
2. Select and adjust each item to obtain the optimum image.

## 4-2. Volume Electrical Adjustments

### Sub Colour Adjustment

1. Input a PAL colour bar signal.
2. Connect an oscilloscope to CN5400 pin 5 located on the C Board.
3. Enter into the 'Service Mode'.
4. Choose 'Backend' from the menu.
5. Adjust 'Sub Colour' data so that the right sides of the waveform are of equal height.





Sound					
No	Descr	Def	Min	Max	Data
1	Ref-Level	40	0	20	40
2	Auto-Gain	ON	OFF	ON	ON
3	Ana-In	0	0	1	0
4	Carr-Mute	ON	OFF	ON	ON
5	Clock Out	ON	OFF	ON	ON
6	AM-Gain	ON	OFF	ON	ON
7	Clip-Mode	0	0	2	0
8	SCART1VOL	79	0	127	79
9	SCART2VOL	79	0	127	79
10	SCART-Pr	27	0	127	27
11	I2S1-Pr	16	0	127	16
12	I2S2-Pr	16	0	127	16
13	FM Pr	27	0	127	27
14	BG Nic.Pr	53	0	127	53
15	L Nic.Pr	59	0	127	59
16	DK Nic Pr	53	0	127	53
17	I Nic Pr	97	0	127	97
18	Irl Nic Pr	97	0	127	97
19	AVC-Decay	2	0	8	2
20	SubW.Vol	-4	-127	0	-4
21	SubW.Freq	20	5	40	20
22	SubW.HPass	ON	OFF	ON	ON
23	Spat.Stre	127	0	-1	127
24	Spat.Coeff	0	0	8	0
25	Bass Offs	0	-3	3	0
26	Treble Offs	-1	-3	3	-1
27	Loudn.Offs	0	0	9	0
28	HP-VolOffs	-2	-5	5	-2
29	M-S Limit	30	-128	127	30
30	M-B Limit	-30	-128	127	-30
31	S-M Limit	12	-128	127	12
32	S-B Limit	-20	-128	127	-20
33	B-M Limit	-12	-128	127	-12
34	B-S Limit	20	-128	127	20
35	Err.Max	40	0	255	40
36	Err.Min	14	0	25	14
37	Vol.Offs	-4	-6	0	-4

**Table.4-12**

Special Adjustment				
No	Descr	Min	Max	Data
1	RGB Level	0	7	0
2	RGB Gain	0	31	8
3	RGB PAT Level	0	7	0
4	RGB PAT Gain	0	31	17
5	RGB H-Position	-10	10	1
6	Extra FW	0	255	255
7	EPG ChksCheck	OFF	ON	ON
8	Slicer High	OFF	ON	ON
9	FCW Wide	OFF	ON	OFF
10	High PLL	OFF	ON	OFF
11	Panic Offset	0	2	2
12	Wide Mute	OFF	ON	OFF
13	NTSC AUTO YC	OFF	ON	OFF
14	AVShp reduct	OFF	ON	OFF

**Table.4-13**

### 4-3. TEST MODE 2:

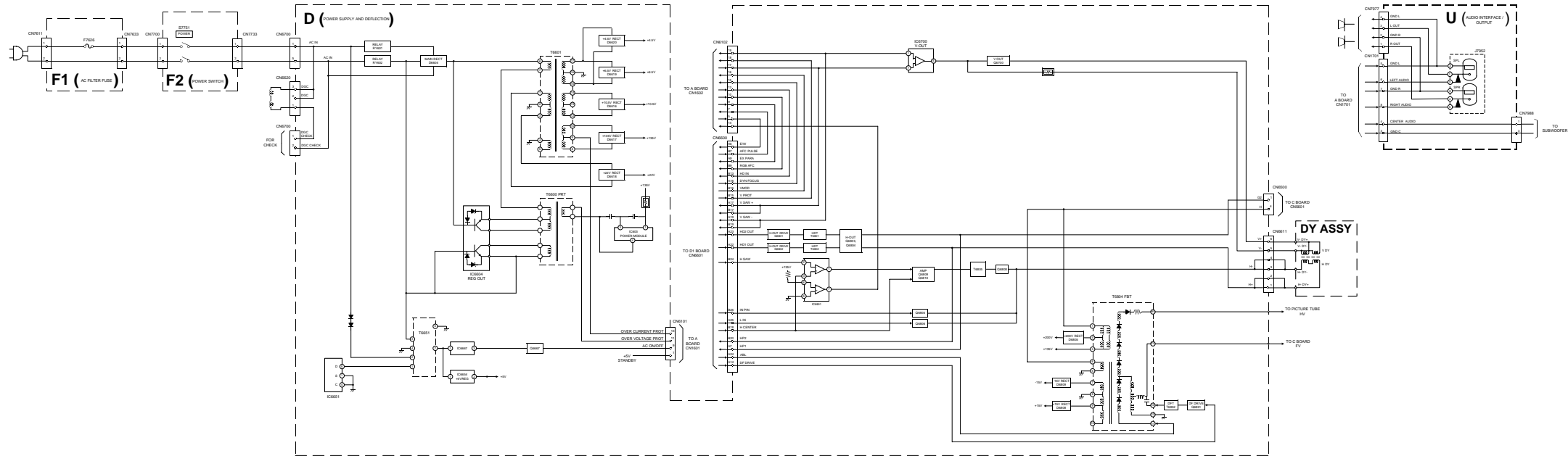
Is available by pressing the 'TEST' button twice, OSD 'TT' appears. The functions described below are available by selecting the two numbers. To release the 'Test mode 2', press 0, 10, 20 ... twice or switch the TV set into Stand-by mode. Pressing the two Local Control buttons (+ and -) during power ON will also switch into 'TT' mode.

In 'TT' mode, it is possible to remove the Menu from the screen by pressing the Speaker Off button once. Pressing the Speaker OFF button a second time will cause the Menu to reappear. The function is kept even when the menu is not displayed on screen !!.

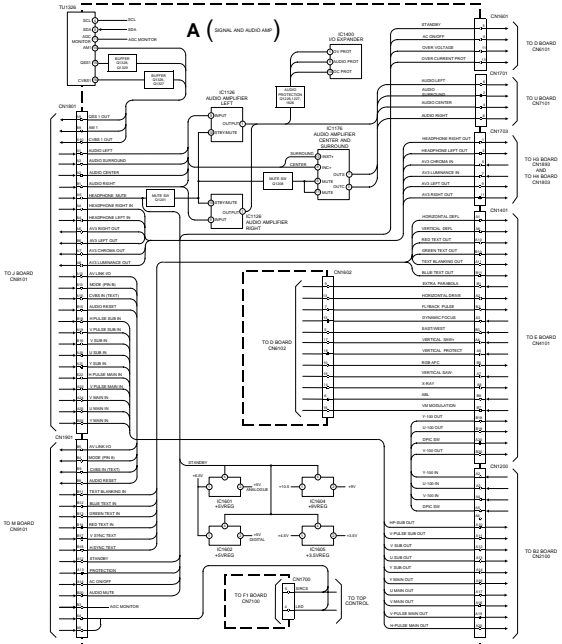
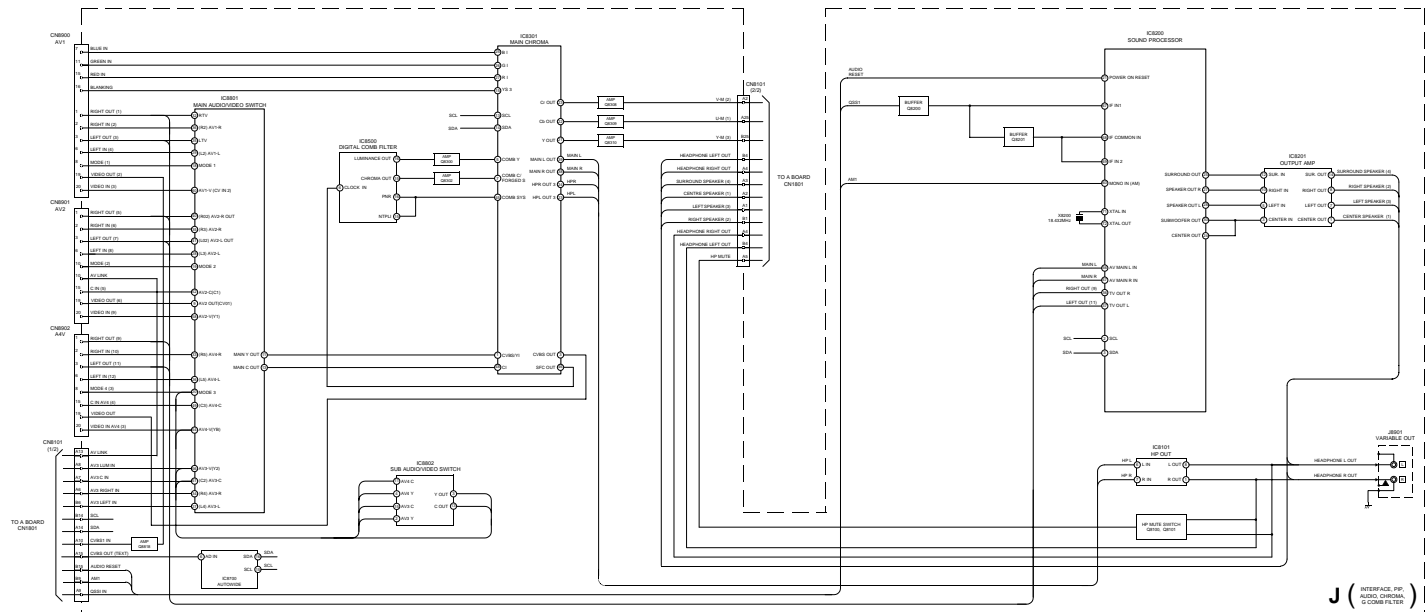
00	Switch back to normal mode - 'TT' mode off
01	Set picture maximum
02	Set picture minimum
03	Set speaker/headphone Volume to 30%
04	Set speaker/headphone Volume to 50%
05	Set speaker/headphone Volume to 65%
06	Set speaker/headphone Volume to 80%
07	Ageing mode
08	Shipping Condition
09	Language Reset
10	No function
11	Sub picture adjustment
12	Sub colour adjustment
13	Display software version and TV set configuration
14	Production Info Display
15	Picture Rotation
16	Picture level 50%
17	Audio mute on
18	No function
19	Sub brightness adjustment
20	No function
21	Destination A includes text settings, display TV status
22	Destination L includes text settings, display TV status
23	Destination E includes text settings, display TV status
24	Destination U includes text settings, display TV status
25	Destination D includes text settings, display TV status
26	Destination B includes text settings, display TV status
27	Destination K includes text settings, display TV status
28	Destination R includes text settings, display TV status
30	No function
31	Geometry Adjustment 1
32	Geometry Adjustment 2
33	Error monitor
34	No function
35	CRT 4:3 <> 16:9 ; Display TV status
36	Line 23 detection switch
37	Velocity Modulation (VM) test
38	No function
39	No function
40	No function

41	Screen mode check
42	Re-initialise geometry
43	No function
44	No function
45	No function
46	Reserved for dealer commander
47	Re-initialise NVM
48	Set NVM as non virgin
49	Set NVM as virgin
50	No function
51	Set Dolby volume to 90%
52	Dolby on left speaker only
53	Dolby on right speaker only
54	Dolby on left centre only
55	Dolby on surround speaker only
56	No function
-	
59	
60	No function
61	Service mode
62	Production mode
65	Reset error codes
68	Ignore error on
69	Ignore errors off
70	No function
71	No function
-	
72	
73	Clear programs
74	No function
-	
79	
80	No function
81	PAP H adjustment left image
82	PAP H adjustment right image
83	No function
-	
86	
87	Personal ID reset
88	Parental Lock off
89	No function
90	No function

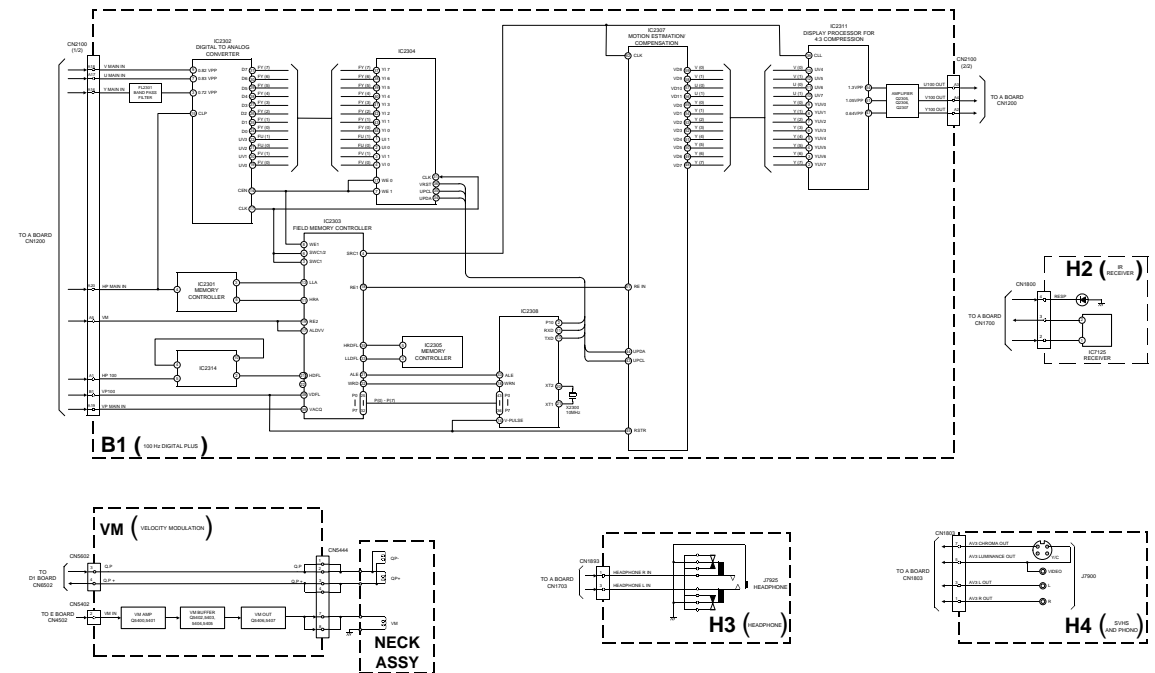
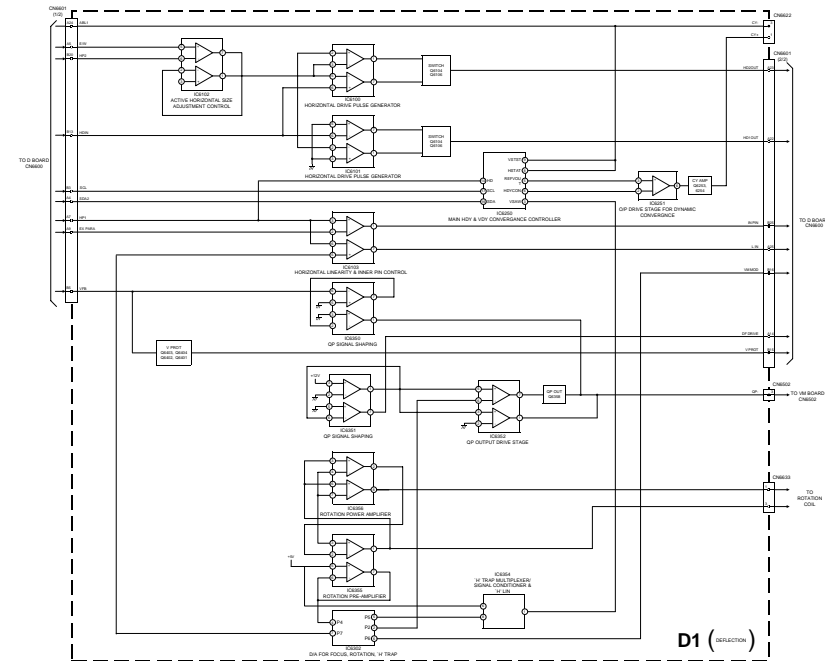
5-1. BLOCK DIAGRAMS (1)



5-1. BLOCK DIAGRAMS (2)

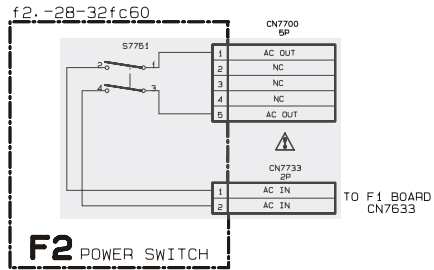


### 5-1. BLOCK DIAGRAMS (3)

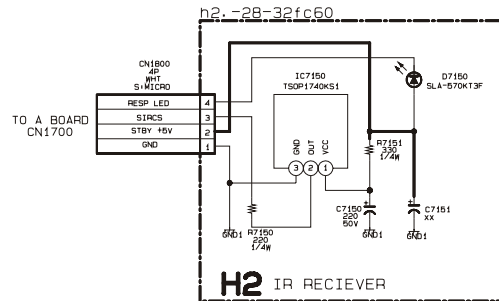




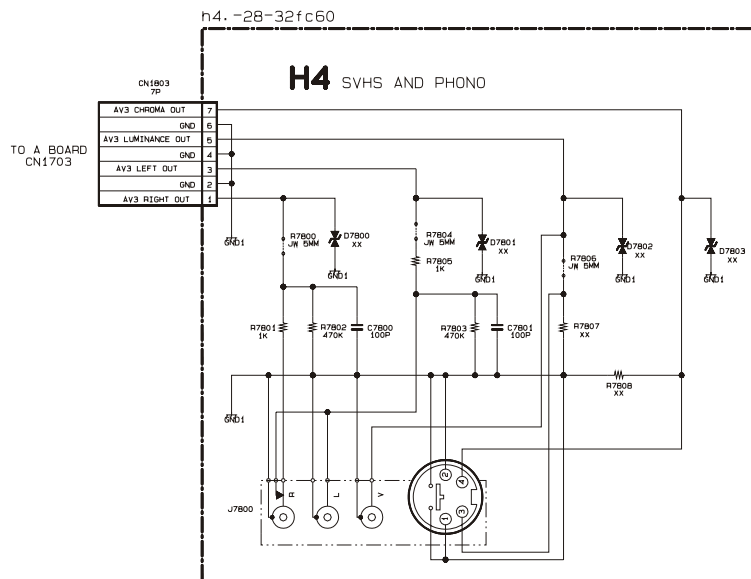
**F2** [ POWER SWITCH ]



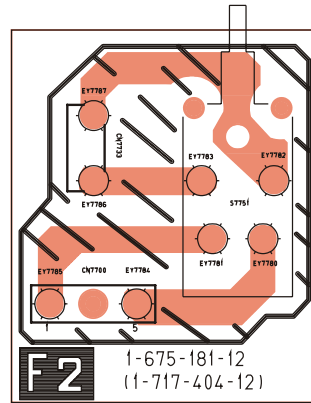
## H2 [ IR RECEIVER ]



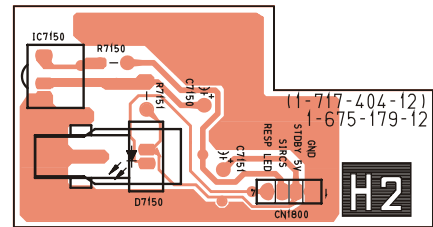
#### H4 [ SVHS AND PHONO ]



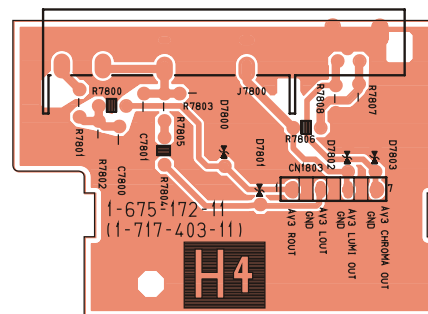
## F2 [ PRINTED WIRING BOARD ]



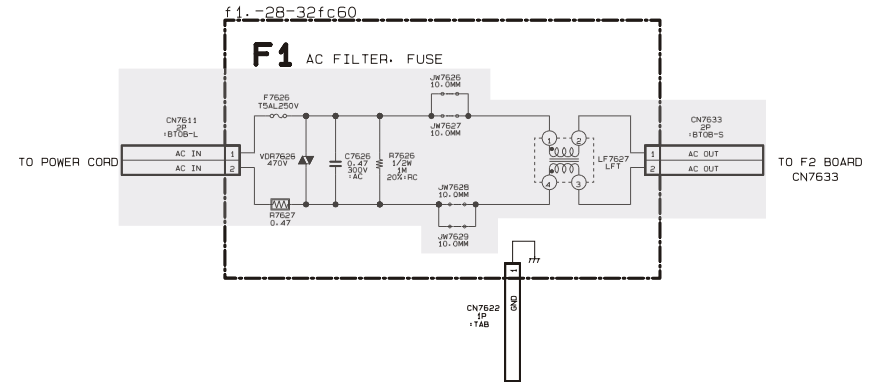
## H2 [ PRINTED WIRING BOARD ]



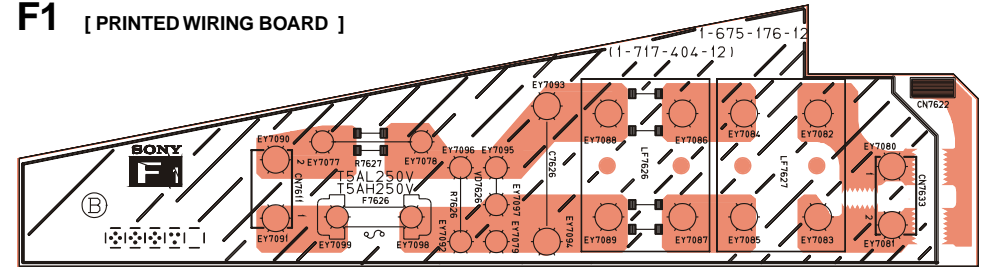
#### H4 [ PRINTED WIRING BOARD ]



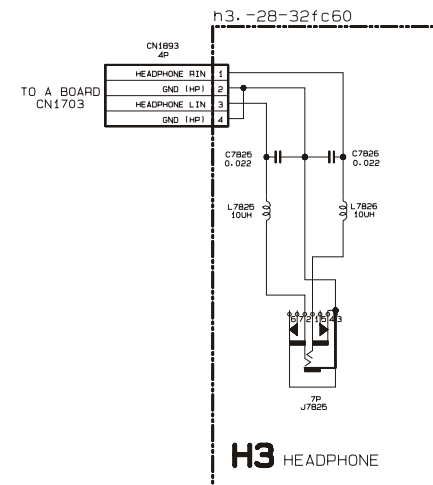
## F1 [ AC FILTER AND FUSE ]



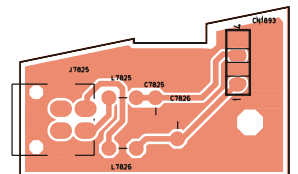
**F1** [ PRINTED WIRING BOARD ]



### H3 [ HEADPHONE ]



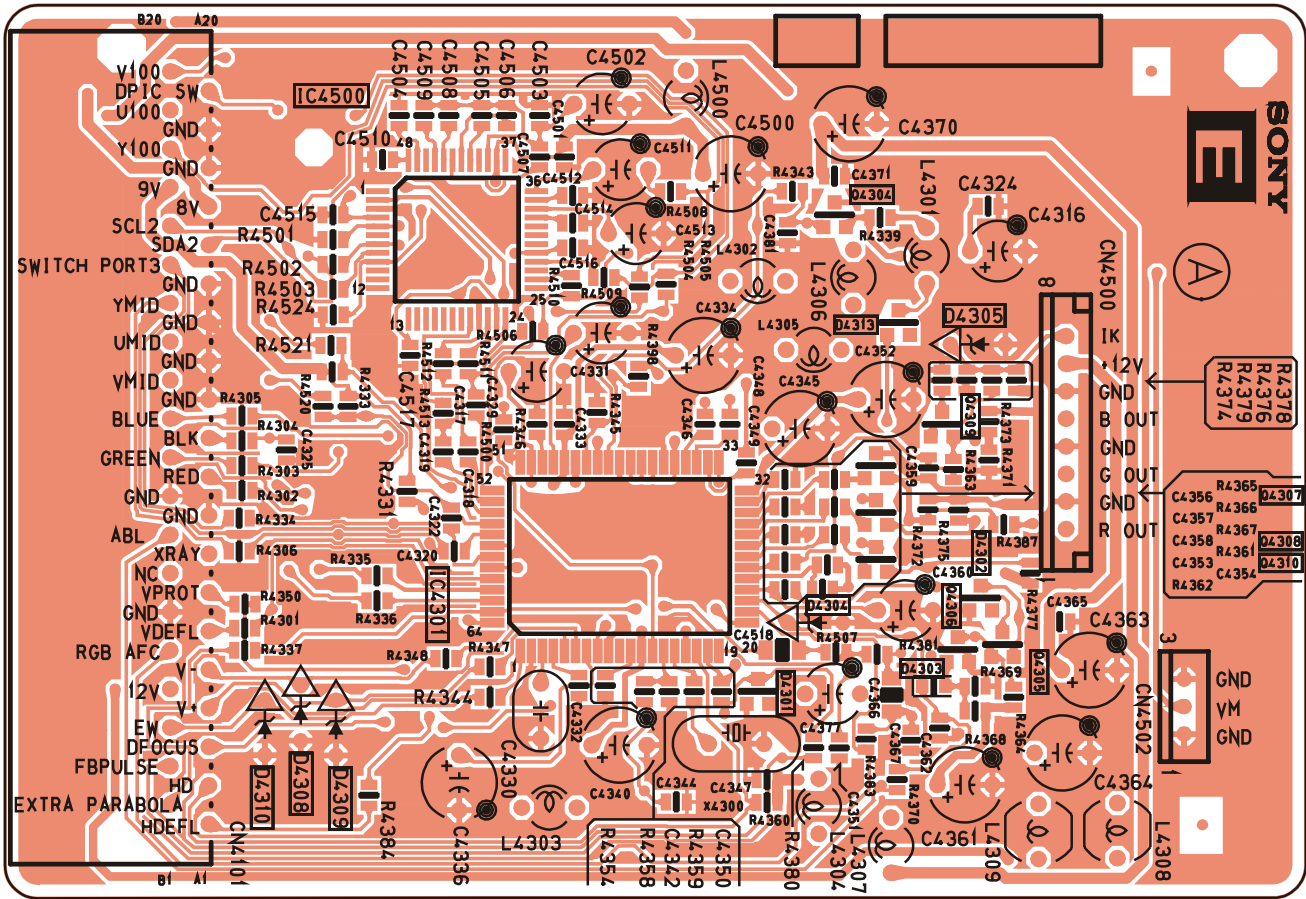
### H3 [ PRINTED WIRING BOARD ]





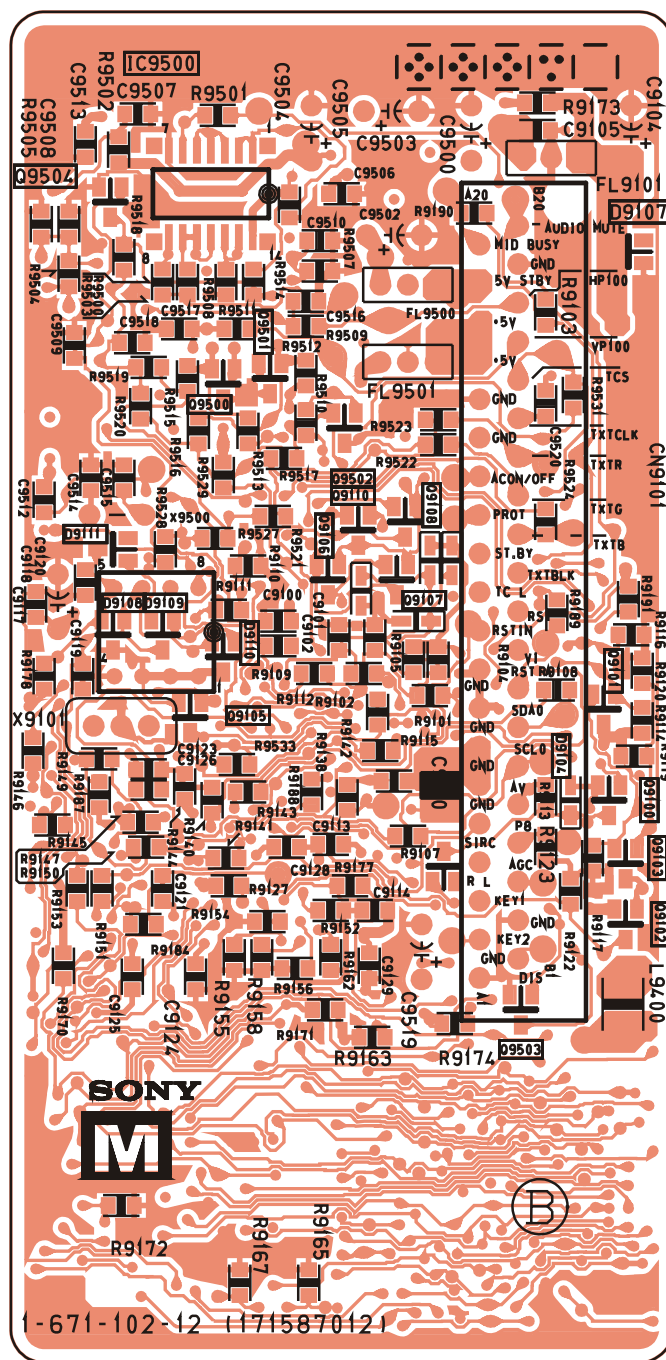
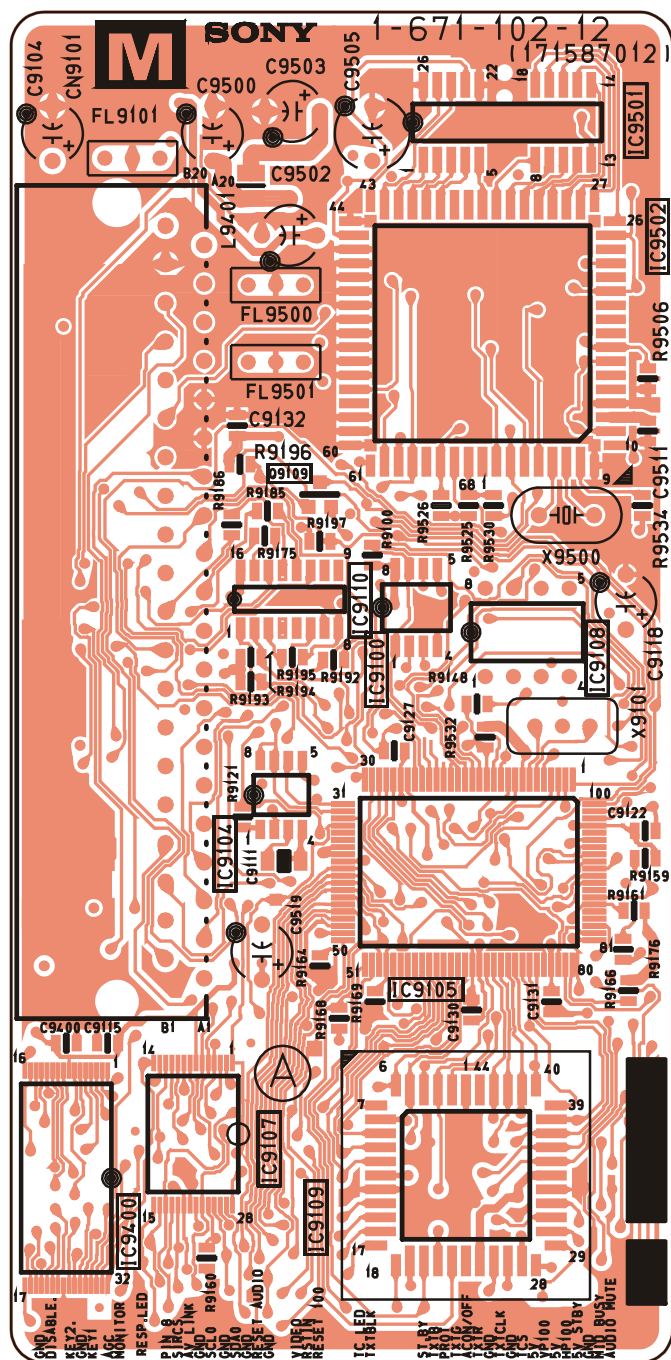


# E



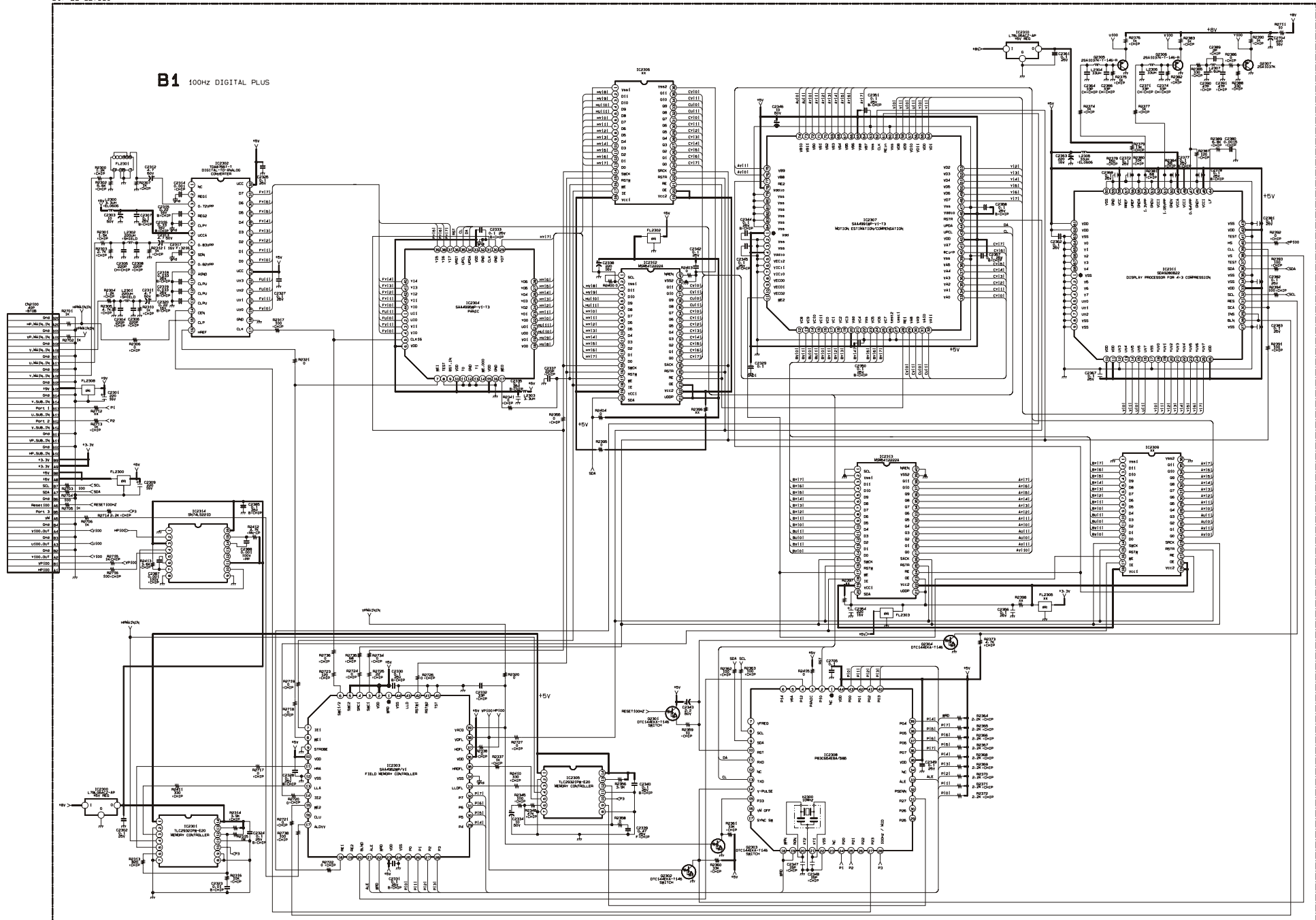
# E

Ref	28FC60	28FC60/Z	32FC60	32FC60/Z
C4367	0.047MF 25V	0.047MF 25V	0.047MF 50V	0.047MF 50V
C4380	-	-	0.0047MF	0.0047MF
Q4318	-	-	2SA1037AK-T146-R	2SA1037AK-T146-R
R4403	-	-	10K	10K
R4404	-	-	10K	10K
R4405	-	-	39K	39K
R4406	-	-	220K	220K
R4407	-	-	56K	56K

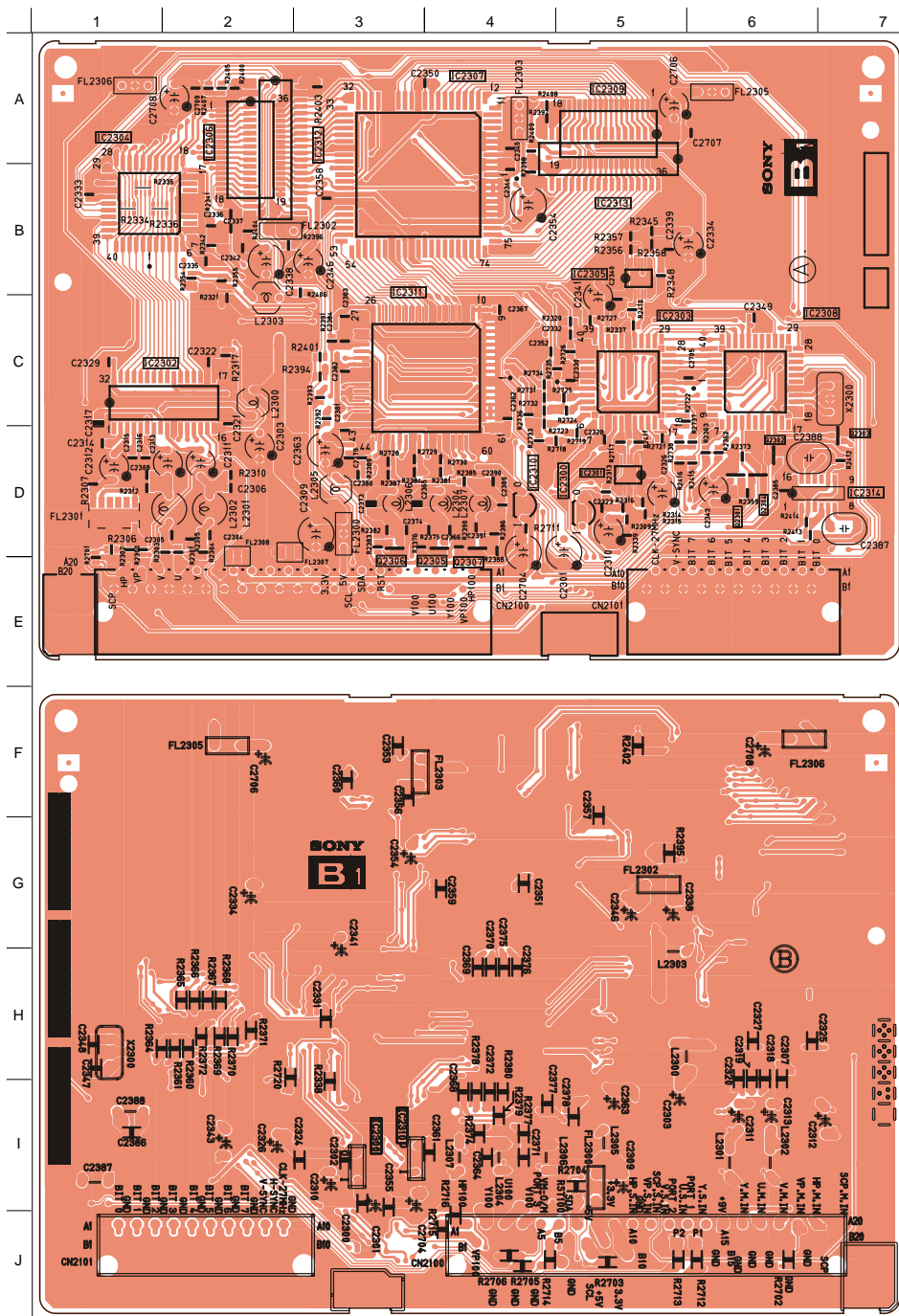


**M** MICRO. TEXT

**B1** 100Hz DIGITAL PLUS



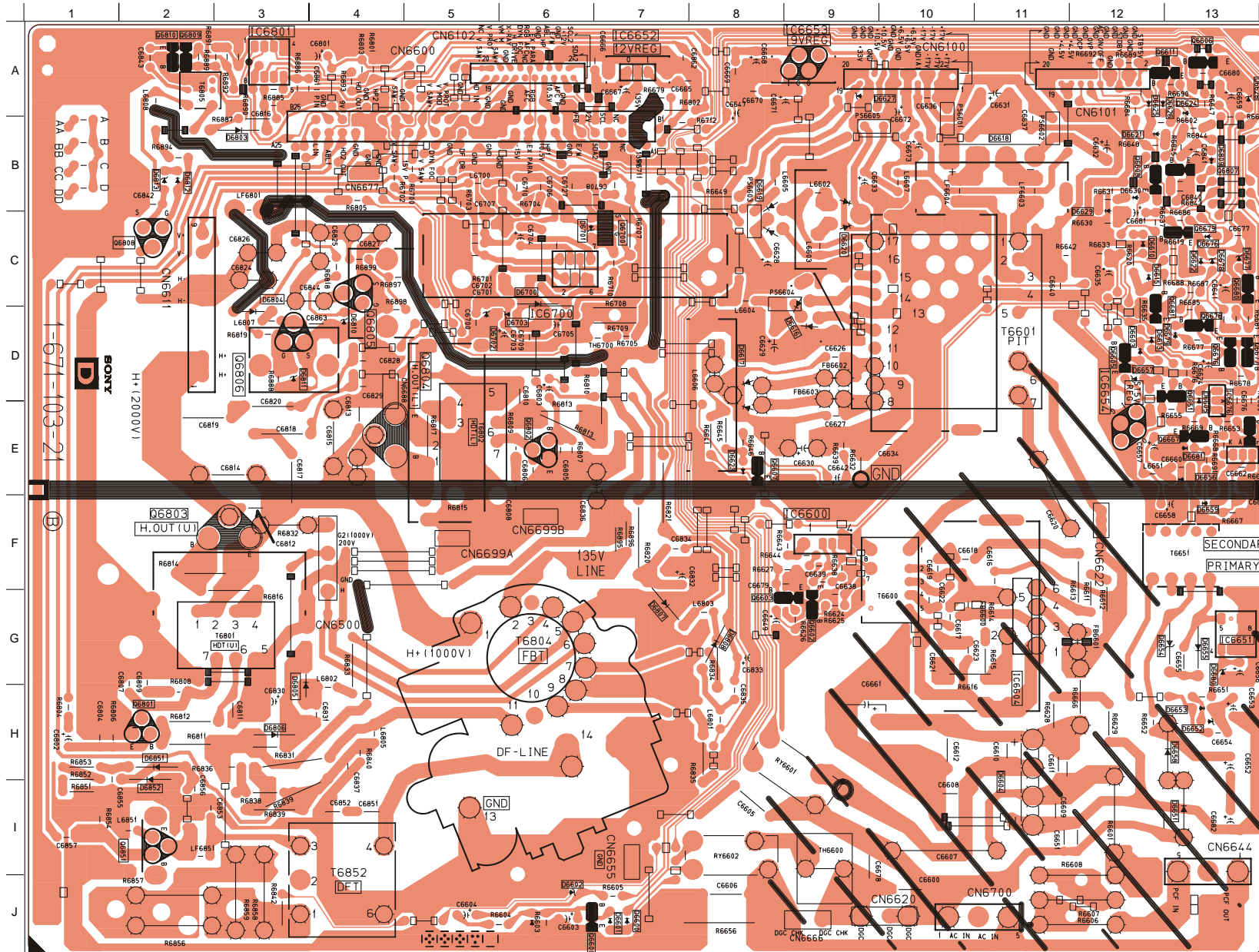
# B1 [ PRINTED WIRING BOARD ]



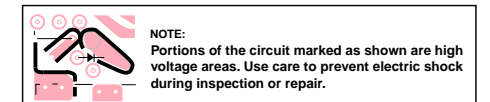
IC	TRANSISTOR
IC2300	E - 4
IC2301	D - 5
IC2302	C - 1
IC2303	C - 5
IC2304	A - 1
IC2305	B - 5
IC2307	A - 3
IC2308	C - 6
IC2310	D - 7
IC2311	C - 3
IC2312	C - 9
IC2313	B - 5
IC2314	D - 6
Q2301	D - 6
Q2302	F - 7
Q2303	F - 7
Q2304	D - 6
Q2305	E - 3
Q2306	E - 3
Q2307	E - 4



# D [ PRINTED WIRING BOARD ]



IC			
IC6600	F - 9	D6613	D - 12
IC6604	H - 11	D6615	C - 12
IC6651	G - 13	D6616	D - 9
IC6652	A - 7	D6618	B - 11
IC6653	A - 9	D6619	B - 8
IC6654	D - 12	D6621	B - 12
IC6667	E - 13	D6622	C - 13
IC6700	D - 6	D6623	E - 8
IC6801	A - 3	D6624	B - 13
TRANSISTOR			
Q6600	J - 6	D6625	A - 12
Q6602	G - 9	D6626	A - 13
Q6603	G - 8	D6628	A - 13
Q6605	D - 12	D6629	B - 12
Q6606	A - 13	D6630	B - 12
Q6607	E - 8	D6651	I - 13
Q6651	E - 13	D6652	H - 13
Q6652	E - 13	D6653	H - 13
Q6667	E - 13	D6654	G - 12
Q6676	D - 13	D6655	G - 13
Q6677	D - 13	D6656	E - 13
Q6678	D - 13	D6658	H - 13
Q6679	C - 13	D6659	F - 13
Q6680	C - 13	D6676	C - 13
Q6681	D - 13	D6677	C - 13
Q6700	C - 6	D6678	C - 13
Q6801	H - 2	D6679	D - 13
Q6802	E - 6	D6681	E - 13
Q6803	F - 2	D6700	C - 5
Q6804	D - 5	D6701	H - 2
Q6805	E - 13	D6803	B - 3
Q6806	D - 3	D6804	C - 3
Q6807	B - 13	D6805	G - 3
Q6809	A - 2	D6806	H - 3
Q6810	A - 2	D6807	G - 7
Q6851	I - 2	D6808	G - 8
Q6809	B - 13		
D6611	D - 3		
D6651	H - 2		
D6652	I - 2		
DIODE			
D6600	J - 7		
D6601	J - 7		
D6602	J - 6		
D6603	D - 12		
D6604	I - 11		
D6605	D - 13		
D6610	C - 12		



## U



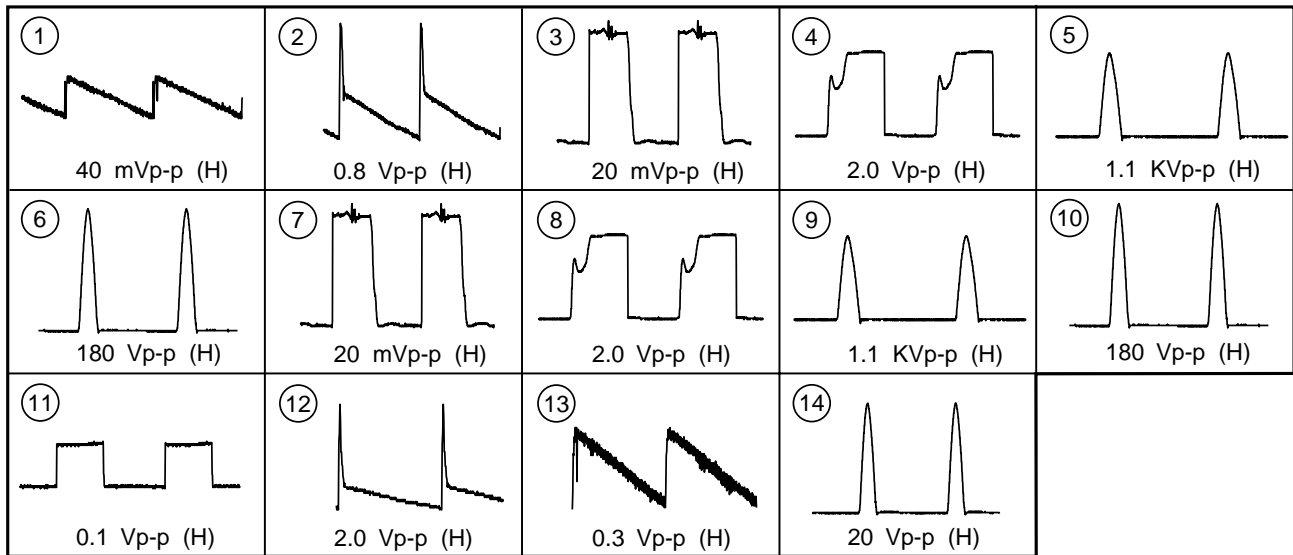
## U



## D [ BOARD COMPONENT DIFFERENCES ]

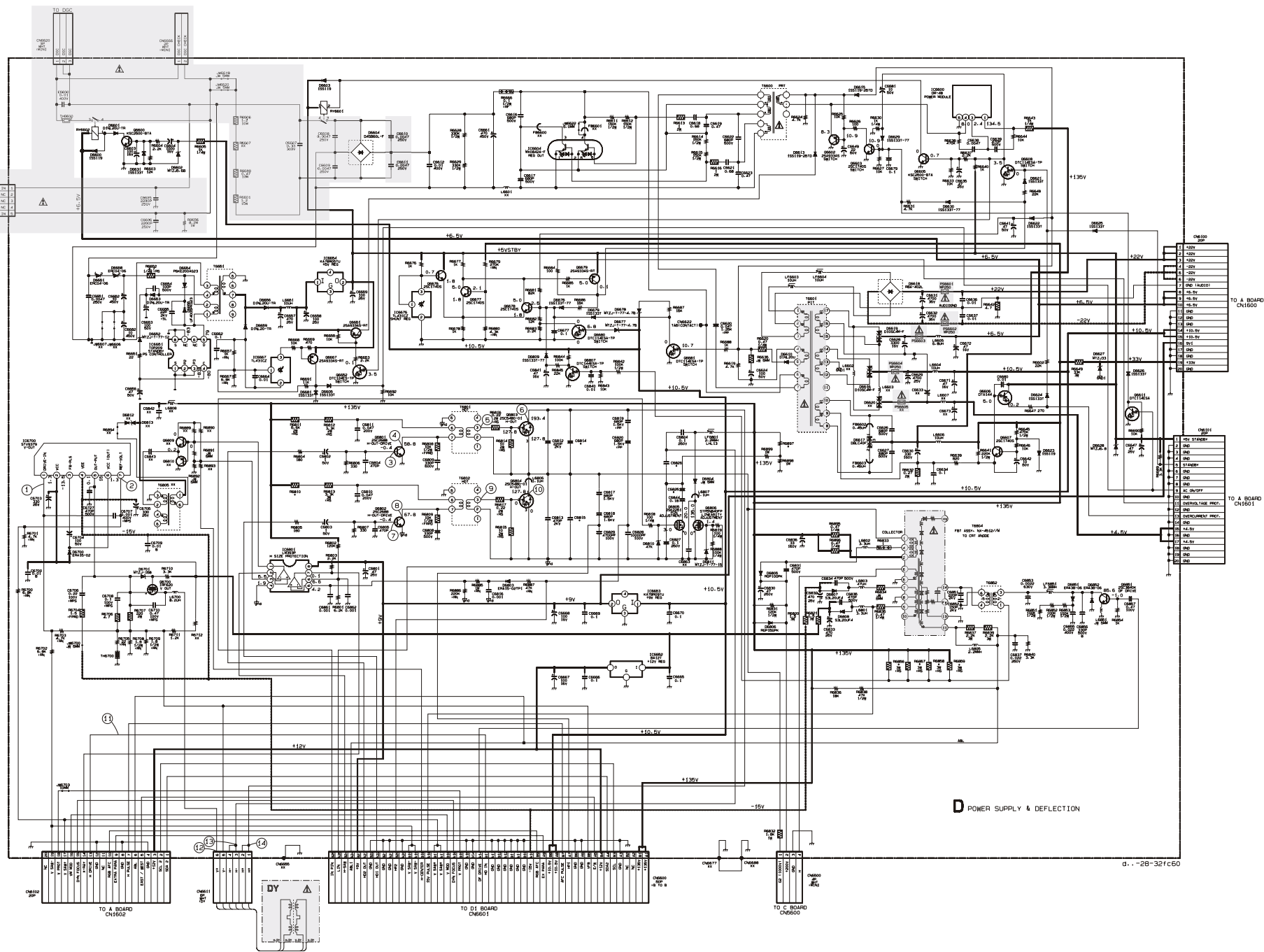
Ref	28FC60	28FC60/Z	32FC60	32FC60/Z
C6814	7500PF	7500PF	6800PF	6800PF
C6815	6800PF	6800PF	6200PF	6200PF
C6825	0.22MF	0.22MF	0.18MF	0.18MF
C6826	0.68MF	0.68MF	0.56MF	0.56MF
R6810	3.3K	3.3K	3.9K	3.9K
R6836	18K	18K	15K	15K
R6856	8.2K	8.2K	6.8K	6.8K
R6857	8.2K	8.2K	6.8K	6.8K
R6858	8.2K	8.2K	6.8K	6.8K
R6859	8.2K	8.2K	6.8K	6.8K
R6897	470K	470K	680K	680K

### Waveforms D Board



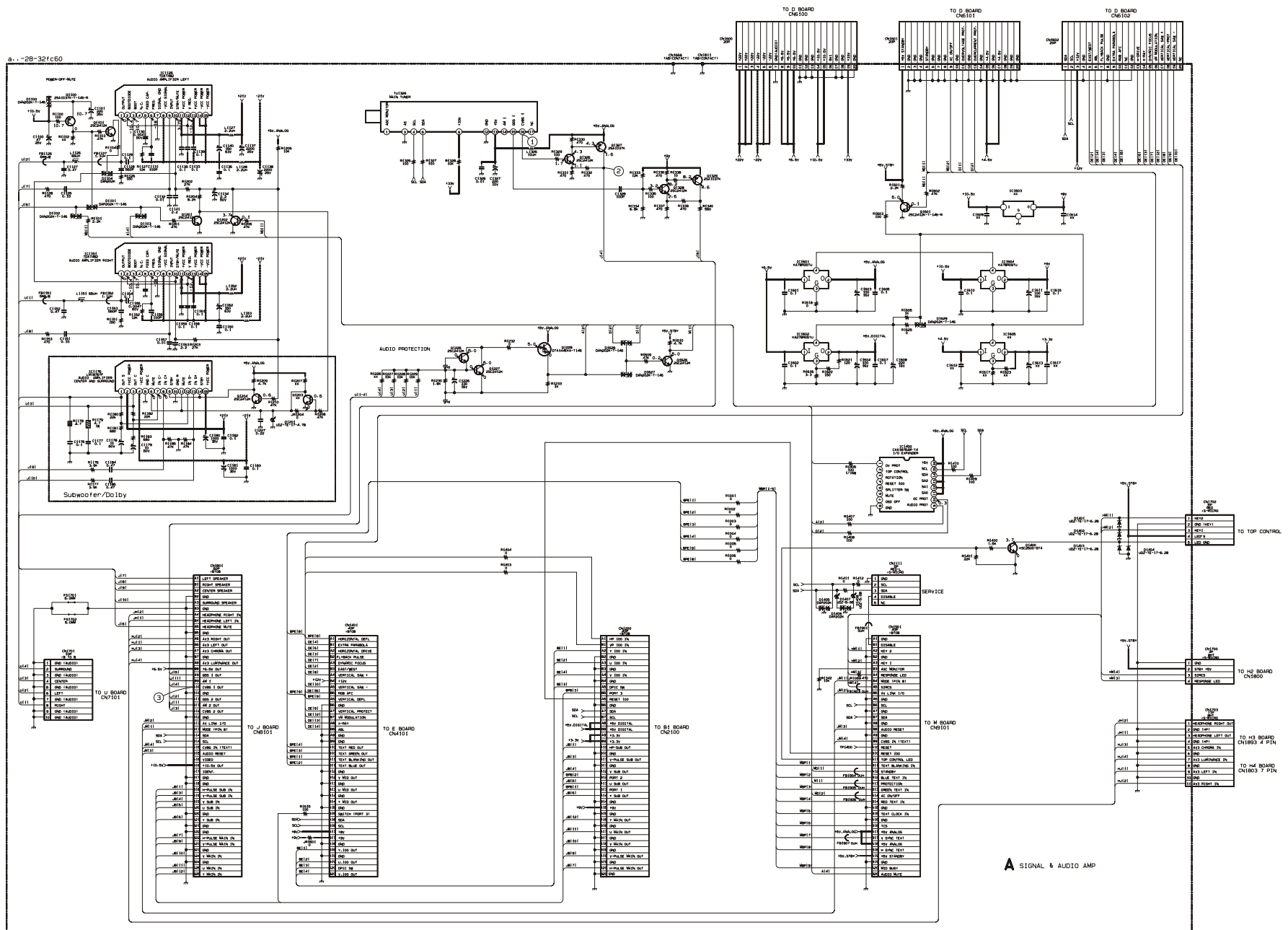


# **D [POWER, HORIZONTAL DEFLECTION, VERTICAL DEFLECTION]**

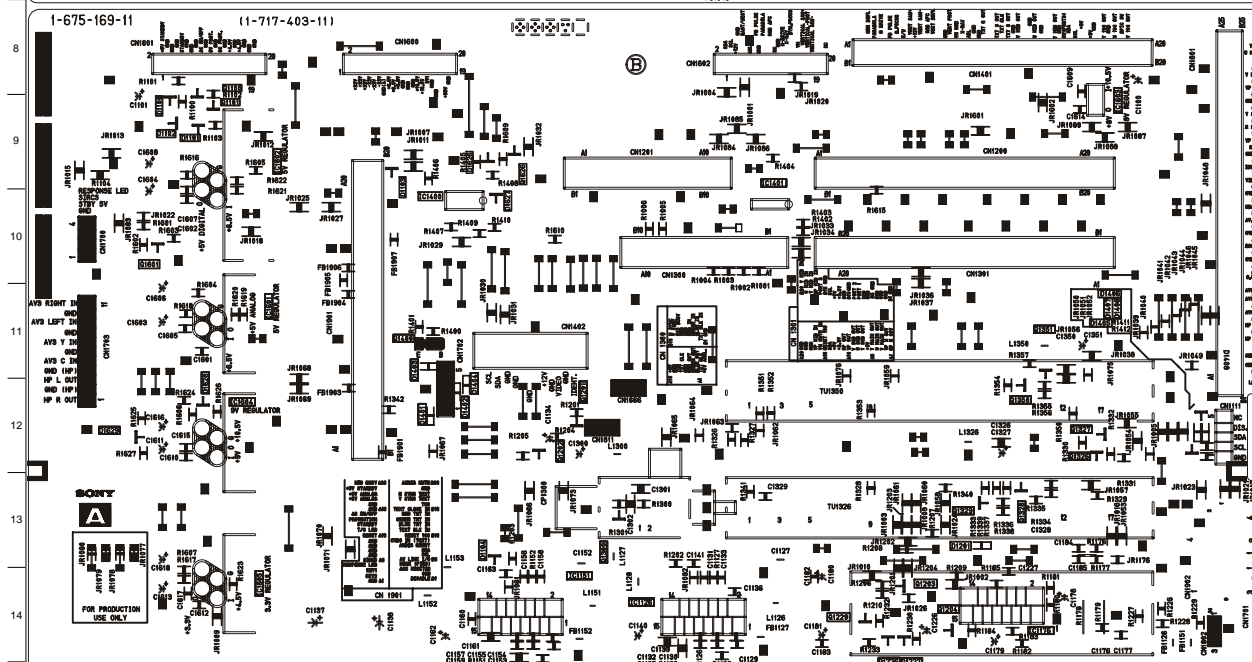


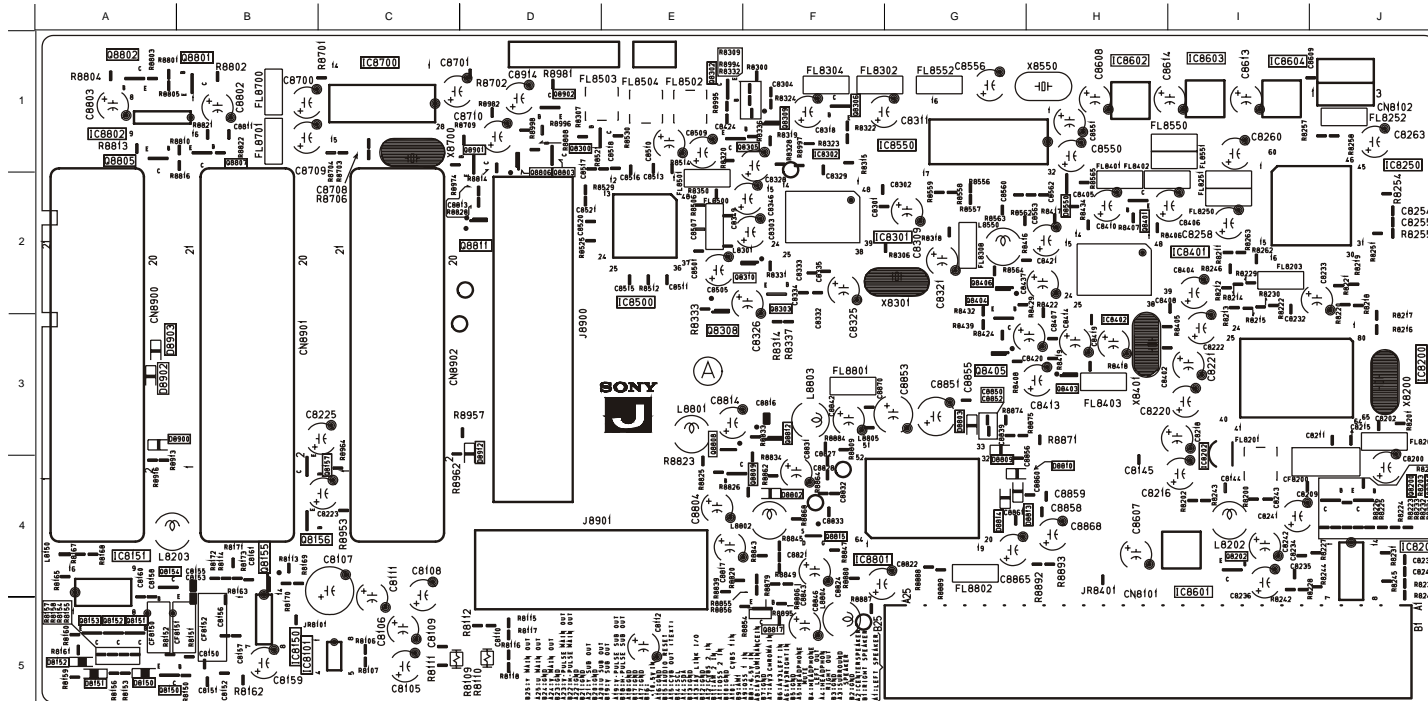
**D POWER SUPPLY & DEFLECTION**

d...-28-321c60

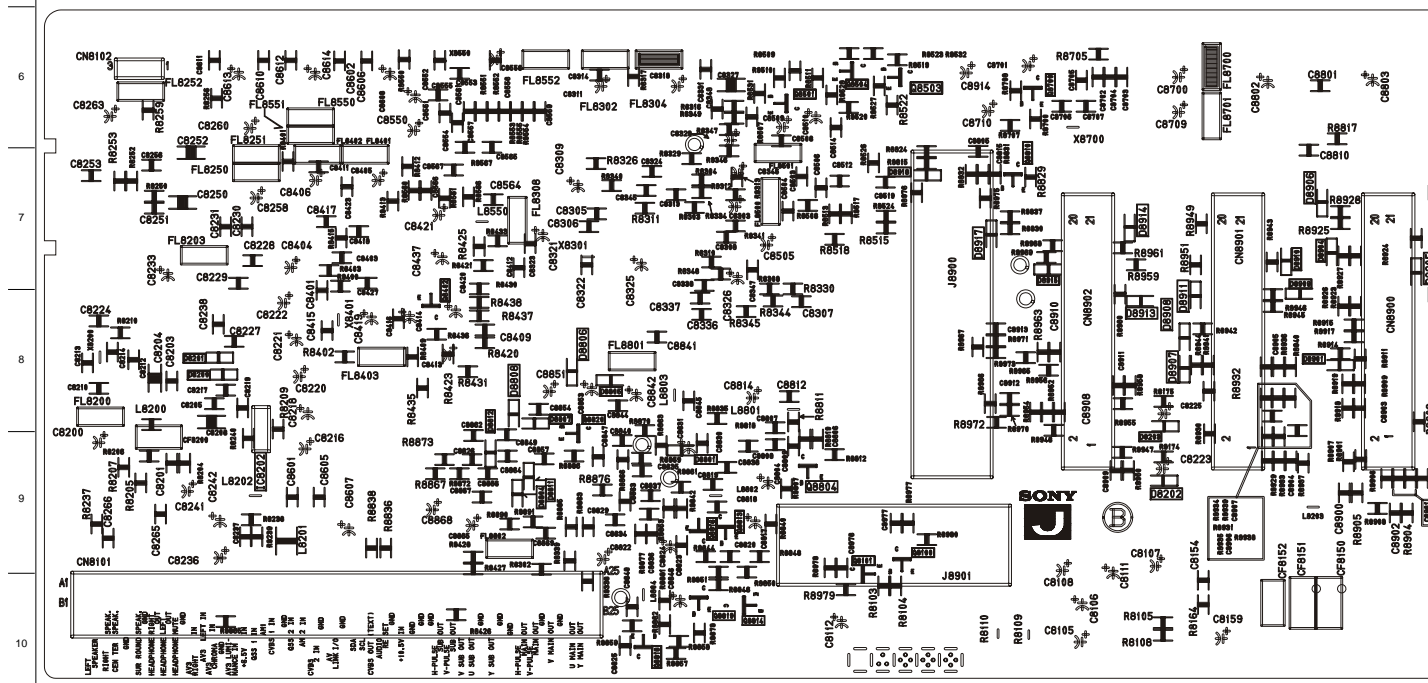


IC	DIODE
IC1126 F-7	D1100 B-8
IC1151 H-7	D1101 B-9
IC1176 C-7	D1102 B-9
IC1400 E-9	D1103 D-9
IC1601 L-3	D1104 D-13
IC602 L-2	D2101 J-13
IC1604 L-4	D4002 E-12
<b>TRANSISTOR</b>	
Q1001	D4003 E-11
Q1011 C-8	D4004 E-11
Q1201 F-12	D4006 L-11
Q1202 F-12	D4007 L-11
Q1204 J-14	D4008 L-11
Q1226 J-14	D6286 E-9
Q1227 J-14	D1227 F-12
Q1229 I-14	D6289 B-12
Q1326 L-12	
Q1327 L-12	
Q1328 A-13	
Q1329 -13	
Q1400 E-11	
Q1401 B-10	
Q1626 F-9	





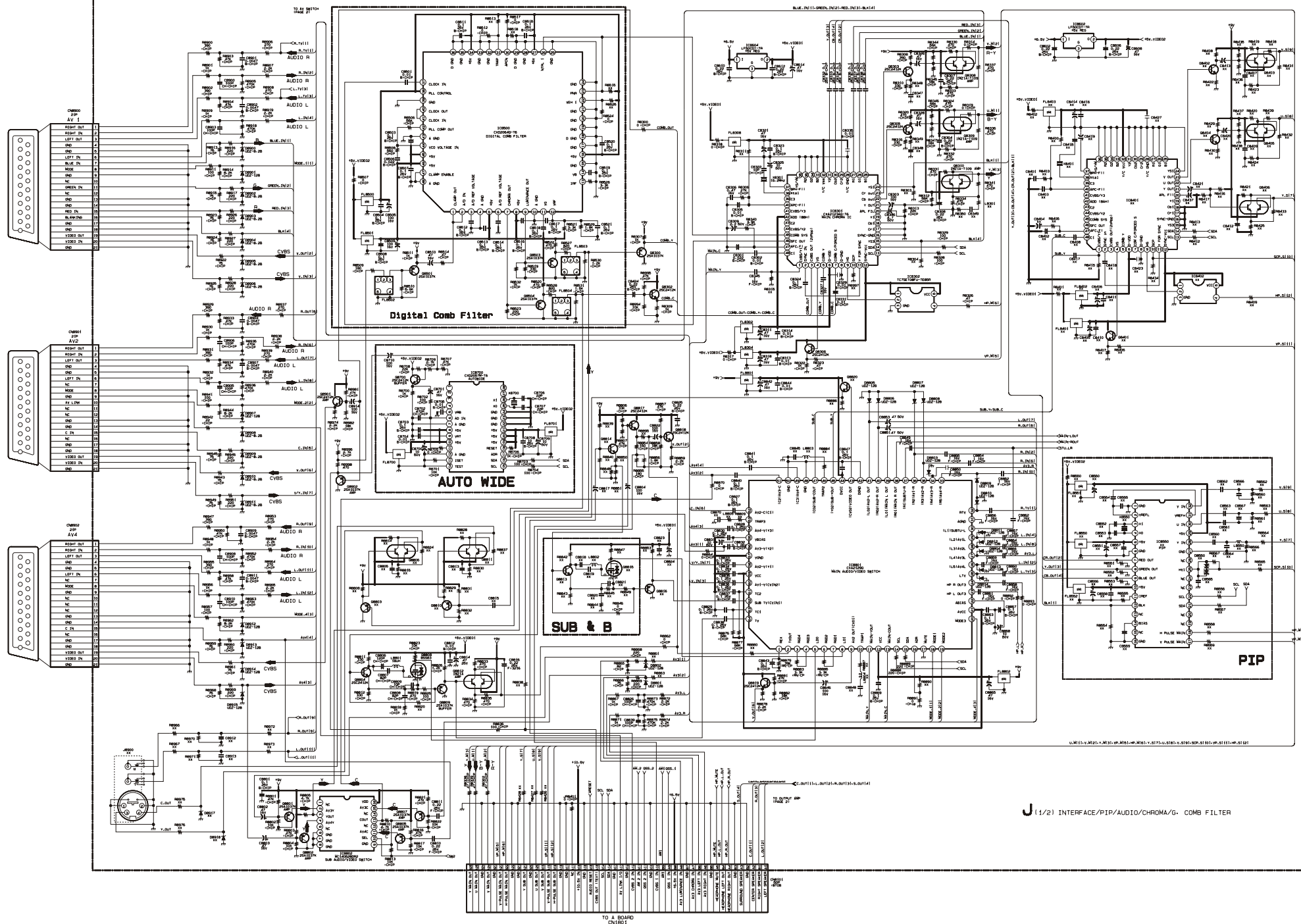
IC	DIODE
IC8101 D-5	D8801 F-4
IC8151 A-4	D8802 F-4
IC8201 J-4	D8803 G-3
IC8202 I-3	D8804 F-6
IC8500 G-1	D8805 D-8
IC8601 I-4	D8806 D-8
IC8602 H-1	D8807 D-8
IC8603 I-1	D8808 D-8
IC8604 I-1	D8809 G-3
TRANSISTOR	
Q8200 J-3	D8810 G-4
Q8201 J-3	D8811 D-9
Q8202 I-4	D8812 D-8
Q8303 F-2	D8813 D-8
Q8305 E-1	D8814 D-8
Q8308 E-3	D8800 I-7
Q8309 F-1	D8801 J-8
Q8310 E-2	D8804 J-7
Q8401 H-2	D8805 J-7
Q8403 H-3	D8806 I-7
Q8404 G-2	D8807 I-8
Q8405 G-3	D8808 I-8
Q8406 G-2	D8809 I-7
Q8901 D-1	D8810 I-7
	D8811 H-7
	D8812 H-7
	D8813 H-7
	D8814 H-7
	D8815 H-7



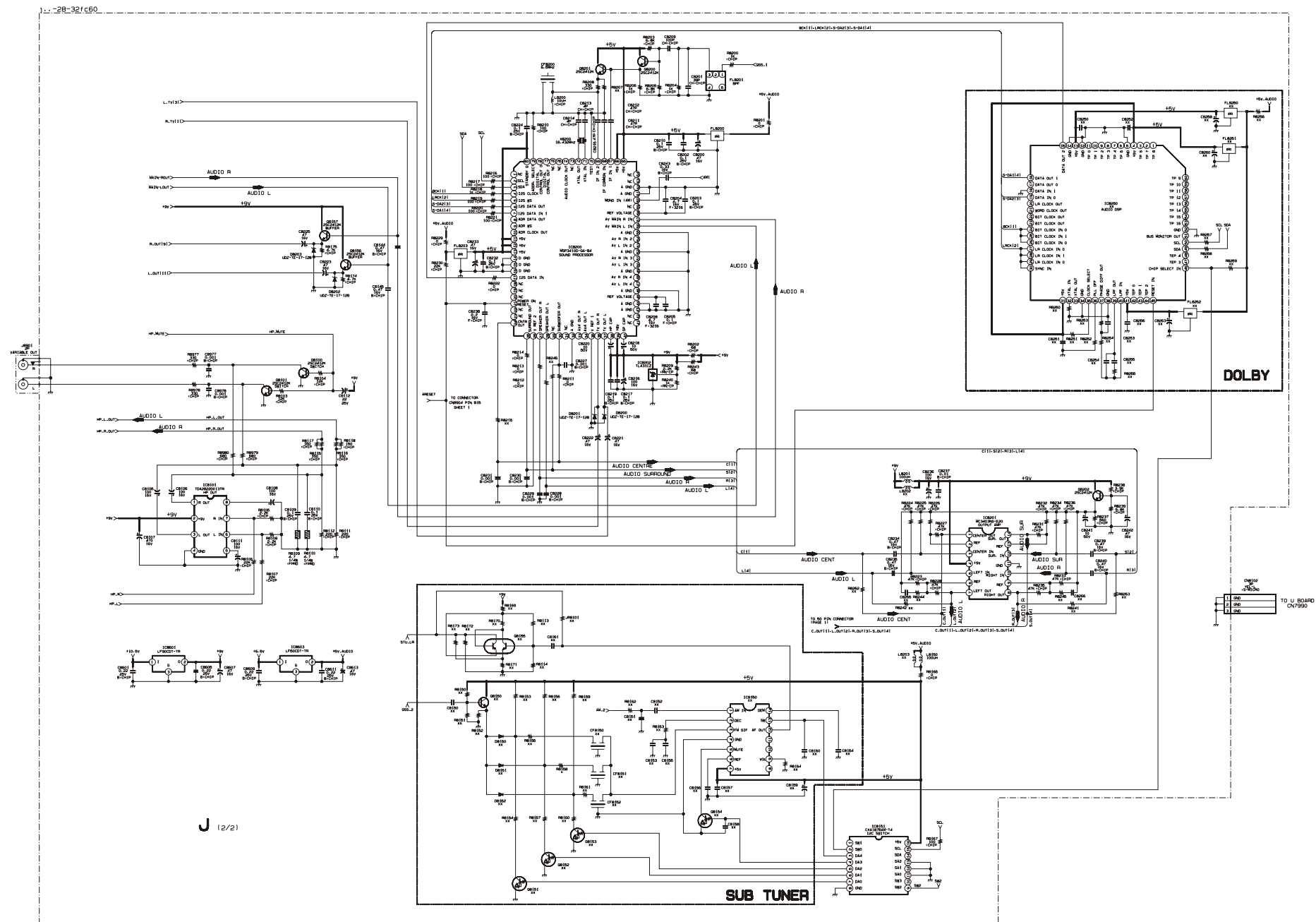


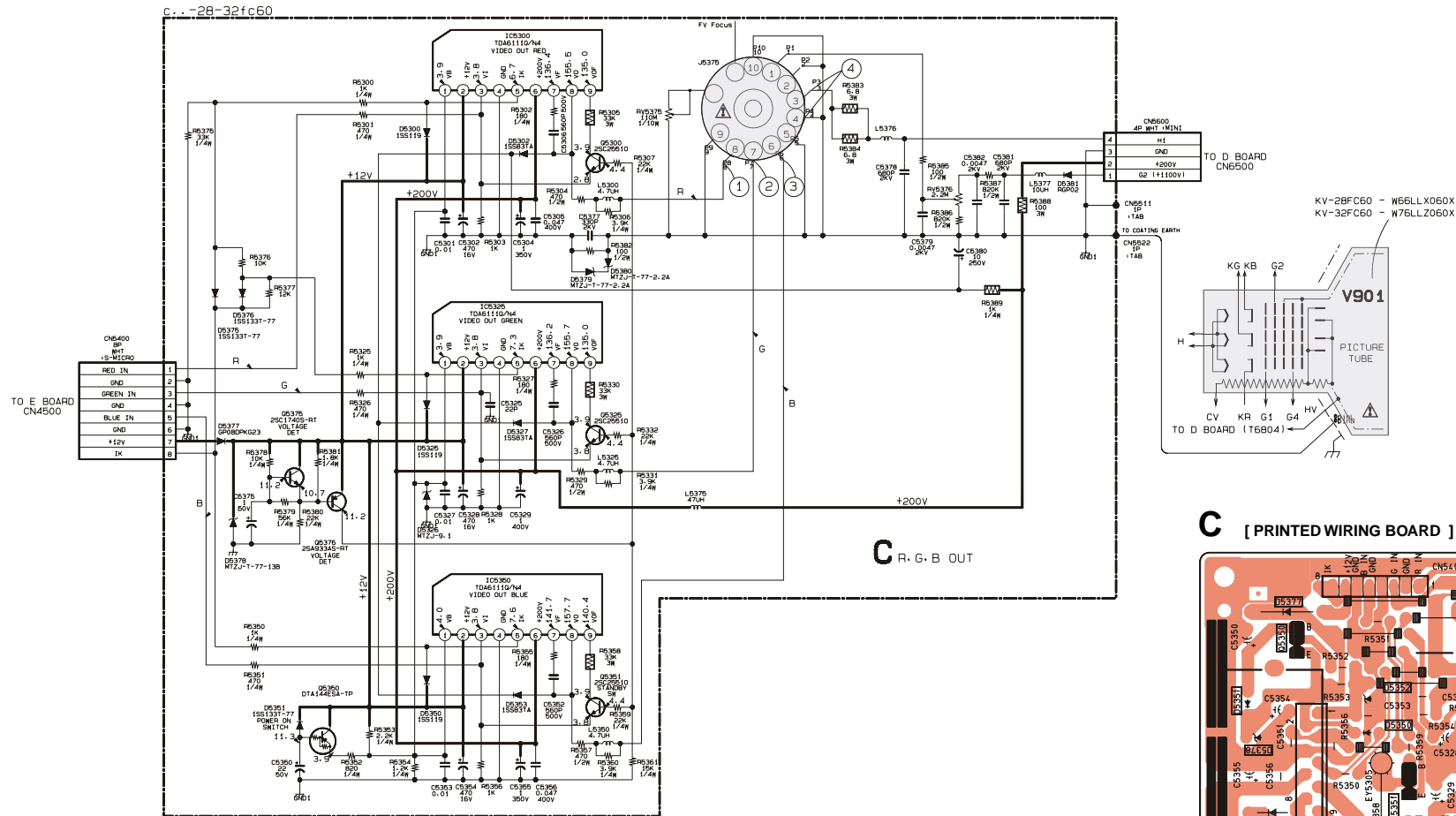
**J** [1/2 INTERFACE/AUDIO/CHROMA/COMB FILTER]

)-28-32°C(50

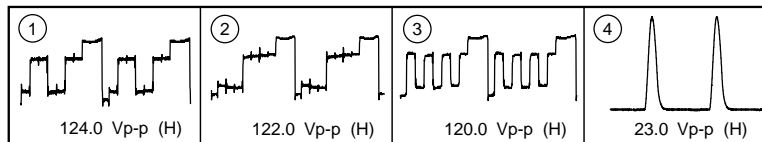


**J** [1/2 INTERFACE/PIP/AUDIO/CHROMA/G. COMB FILTER]

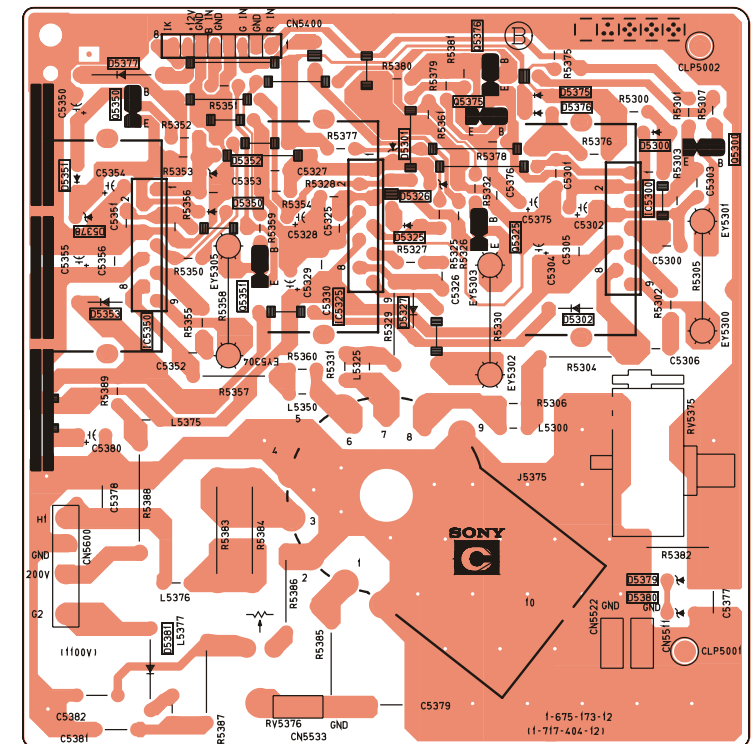


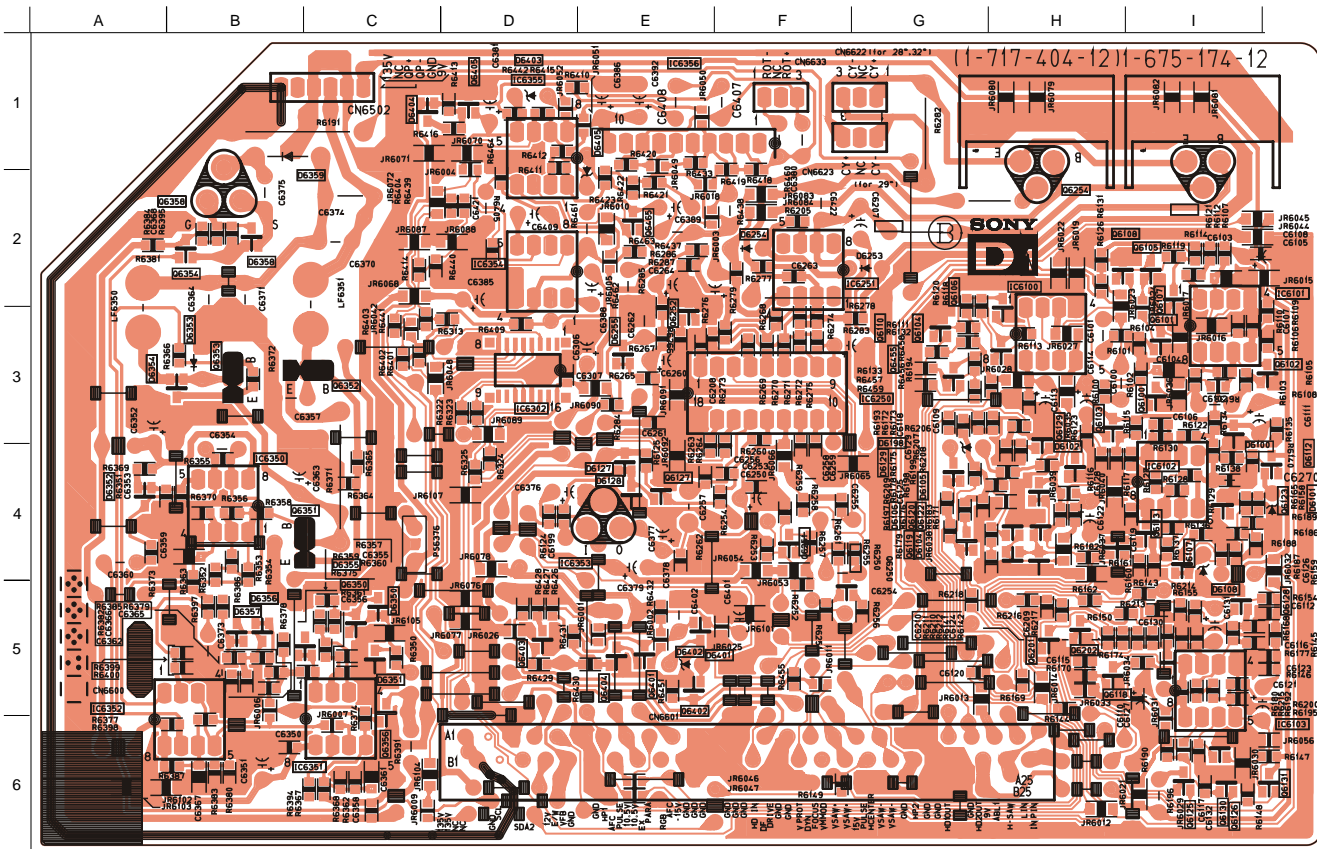


Waveforms C Board



C [PRINTED WIRING BOARD]

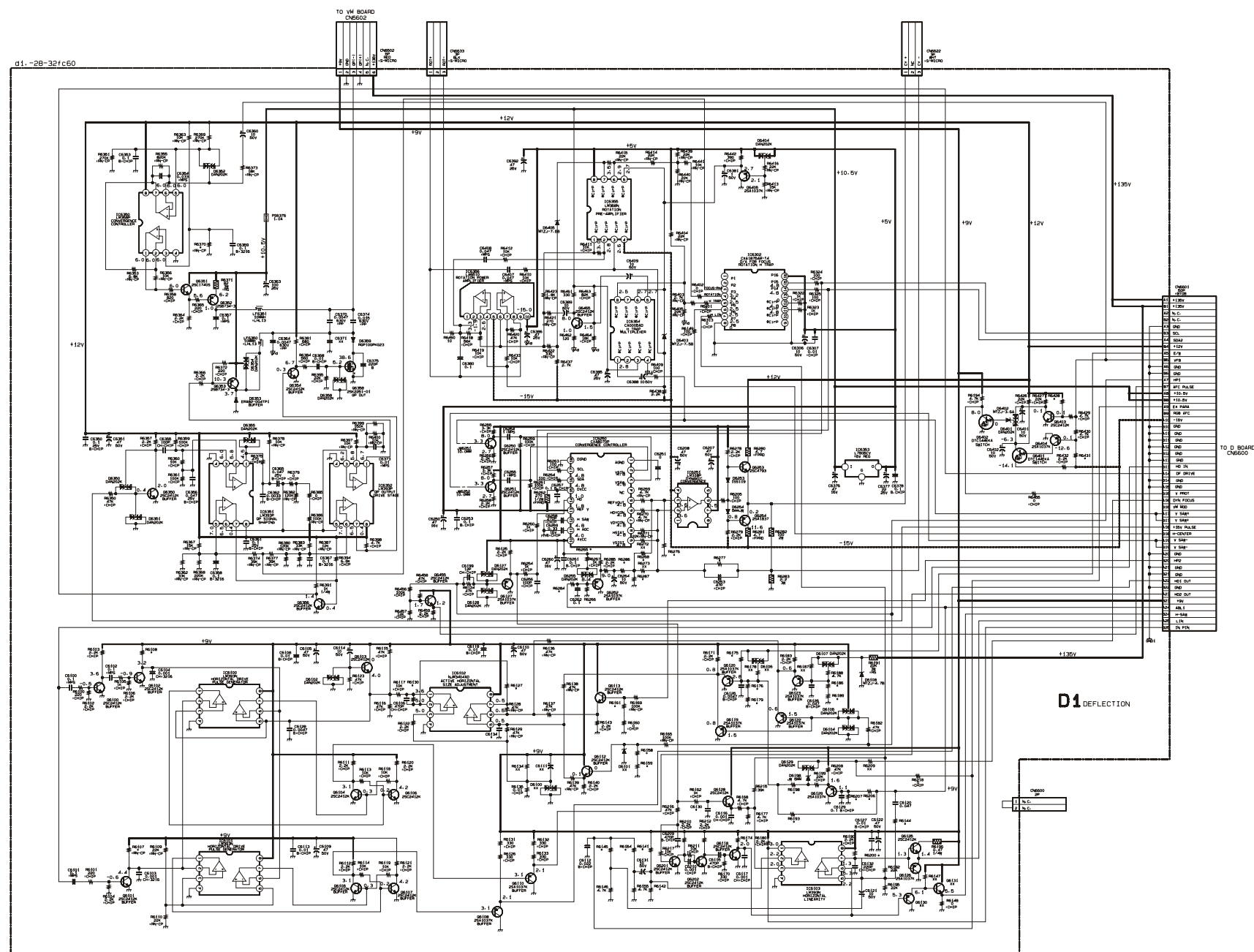




IC		Q6350	C - 4
IC6100	H - 3	Q6351	B - 4
IC6101	I - 3	Q6352	C - 3
IC6102	I - 4	Q6353	B - 3
IC6103	I - 5	Q6354	A - 3
IC6250	F - 3	Q6356	C - 6
IC6251	F - 2	Q6358	A - 2
IC6302	D - 3	Q6401	E - 5
IC6350	B - 4	Q6402	E - 5
IC6351	C - 5	Q6403	D - 5
IC6352	B - 5	Q6404	E - 5
IC6353	E - 4	Q6405	D - 1
IC6354	D - 2	Q6455	G - 3
IC6355	D - 1	Q6456	E - 2
IC6356	E - 1	DIODE	
TRANSISTOR		D6102	H - 3
Q6100	I - 3	D6104	H - 4
Q6101	I - 2	D6105	H - 4
Q6102	I - 3	D6107	I - 4
Q6103	H - 3	D6108	I - 4
Q6104	G - 3	D6127	E - 4
Q6105	I - 2	D6128	E - 4
Q6106	G - 3	D6129	G - 4
Q6107	I - 2	D6198	G - 3
Q6108	H - 2	D6253	G - 2
Q6110	G - 3	D6254	F - 2
Q6112	I - 3	D6255	C - 3
Q6113	I - 4	D6350	C - 5
Q6118	H - 5	D6351	C - 5
Q6119	G - 4	D6352	A - 4
Q6120	G - 4	D6353	B - 3
Q6122	G - 4	D6354	A - 3
Q6123	I - 4	D6355	C - 4
Q6125	I - 6	D6358	B - 2
Q6126	I - 6	D6359	B - 2
Q6127	E - 4	E6401	E - 5
Q6128	I - 5	D6402	E - 5
Q6129	H - 3	D6403	D - 1
Q6201	H - 5	D6404	C - 1
Q6202	H - 5	D6405	E - 1
Q6250	G - 5		
Q6251	F - 4		
Q6252	E - 2		
Q6253	I - 1		
Q6254	H - 2		

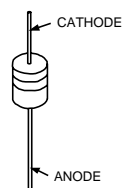
Ref	28FC60	28FC60/Z	32FC60	32FC60/Z
R6130	220PF	220PF	-	-
R6134	10PF	10PF	-	-
R6107	1.8K	1.8K	2.2K	2.2K
R6108	1.8K	1.8K	2.2K	2.2K
R6127	2.2K	2.2K	3.3K	3.3K
R6130	470K	470K	510K	510K
R6141	22K	22K	15K	15K
R6142	6.2K	6.2K	4.7K	4.7K
R6144	220K	220K	120K	120K
R6145	1.5K	1.5K	1.8K	1.8K
R6154	5.6K	5.6K	1K	1K
R6158	2.2K	2.2K	4.7K	4.7K
R6159	2.2K	2.2K	SHORT 0	SHORT 0
R6161	6.8K	6.8K	8.2K	8.2K
R6174	12K	12K	22K	22K
R6175	4.7K	4.7K	6.8K	6.8K
R6176	SHORT 0	SHORT 0	8.2K	8.2K
R6179	4.7K	4.7K	SHORT 0	SHORT 0
R6186	680	680	3.9K	3.9K
R6189	2.7K	2.7K	SHORT 0	SHORT 0
R6193	100PF	100PF	-	-
R6198	47K	47K	22K	22K
R6200	68K	68K	-	-
R6206	270K	270K	220K	220K
R6207	470K	470K	220K	220K
R6265	150K	150K	220K	220K
R6266	-	-	470K	470K
R6268	22K	22K	68K	68K
R6276	12K	12K	30K	30K
R6277	12K	12K	30K	30K
R6284	470K	470K	330K	330K
R6286	10K	10K	8.2K	8.2K
R6287	10K	10K	22K	22K
R6370	10K	10K	12K	12K
R6428	180K	180K	150K	150K
R6431	560K	560K	470K	470K



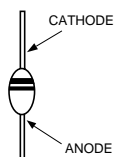




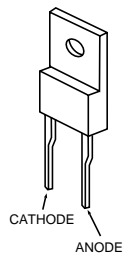
ERA15-02  
 ERA38-06TP1  
 ERA82-004TP1  
 GP08DPKG23  
 MTZJ-T-77-12  
 MTZJ-T-77-15  
 MTZJ-T-77-2.2A  
 MTZJ-T-77-22  
 MTZJ-T-77-33C  
 MTZJ-T-77-3.6A  
 MTZJ-T-77-4.7B  
 MTZJ-T-77-5.6B



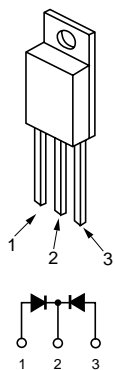
ERC04-06SE



ERD08M-15

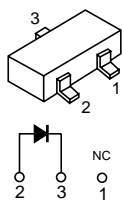


ESAC39M-06C  
 ESAC39M-06CF38

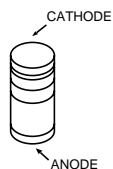


MTZJ-T-77-6.8  
 MTZJ-T-77-7.5B  
 MTZJ-T-77-9.1  
 MTZJ-T-77-13B  
 MTZJ-T-77-12  
 MTZJ-33C  
 RD5.6ESB2  
 RD9.1ESB2  
 P6KE200AG23  
 1SS119-25  
 1SS119-25TD

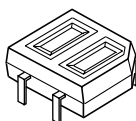
MA3033-L  
 MA3033L-TX  
 MA3056M-TX  
 MA3062M-TX  
 MA3030-H-(TX)



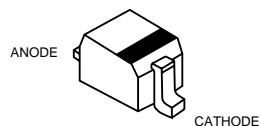
MA3051L-TX



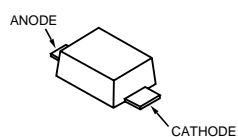
MA73-TX



RD12SB2  
 UDZ-TE-17-4.7B  
 UDZ-TE-5.6B  
 UDZ-TE-17-6.2B  
 UDZ-TE-17-6.8B  
 UDZ-TE-17-8.2B  
 UDZ-TE-12B  
 ISS355TE-17



UF4005PKG23



## SECTION 6 EXPLODED VIEWS

### NOTE :

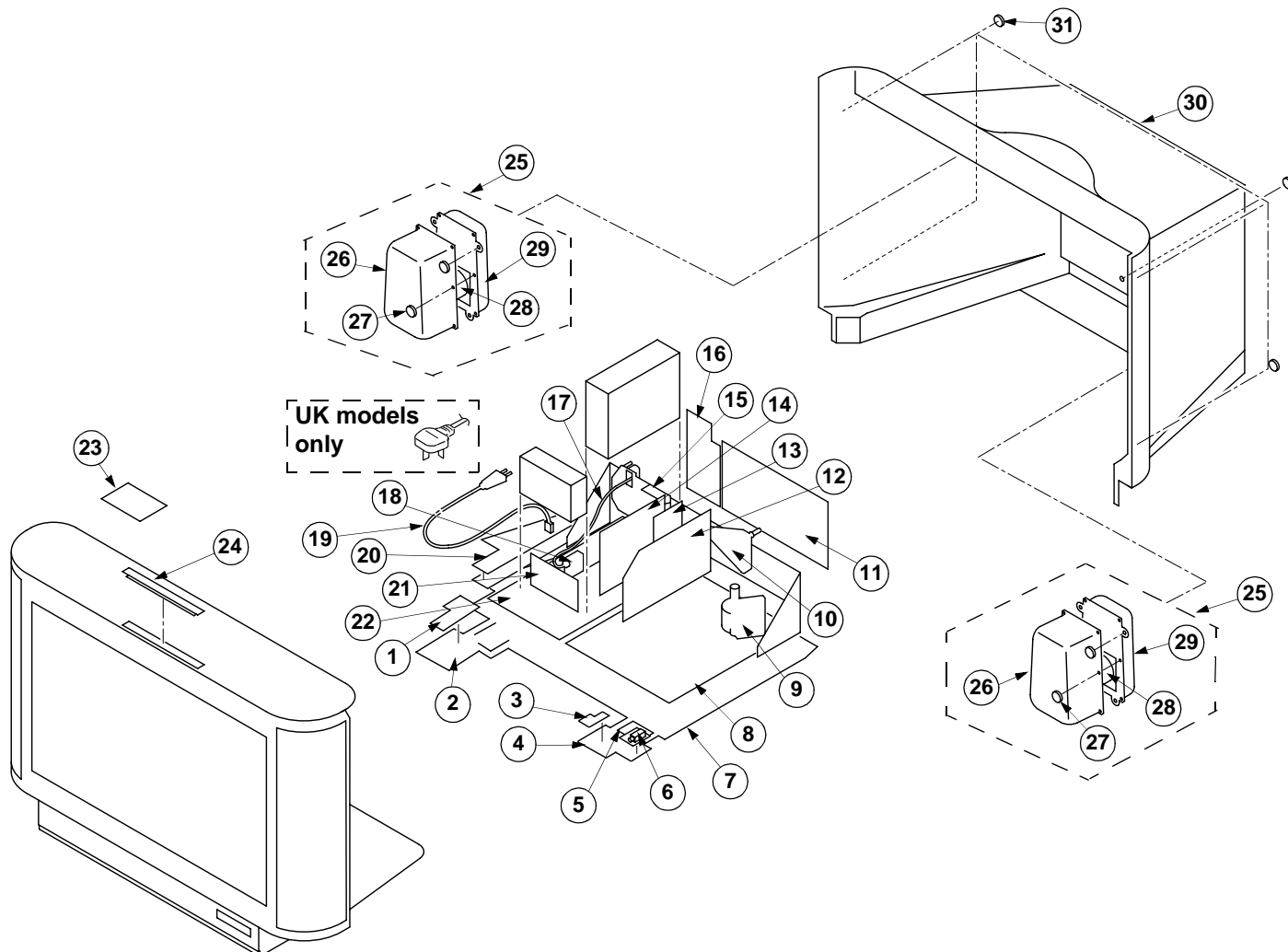
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.

- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

**Note :** Les composants identifiés par une trame et par une marque Δ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces du numéro spécifié.

**Note :** The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

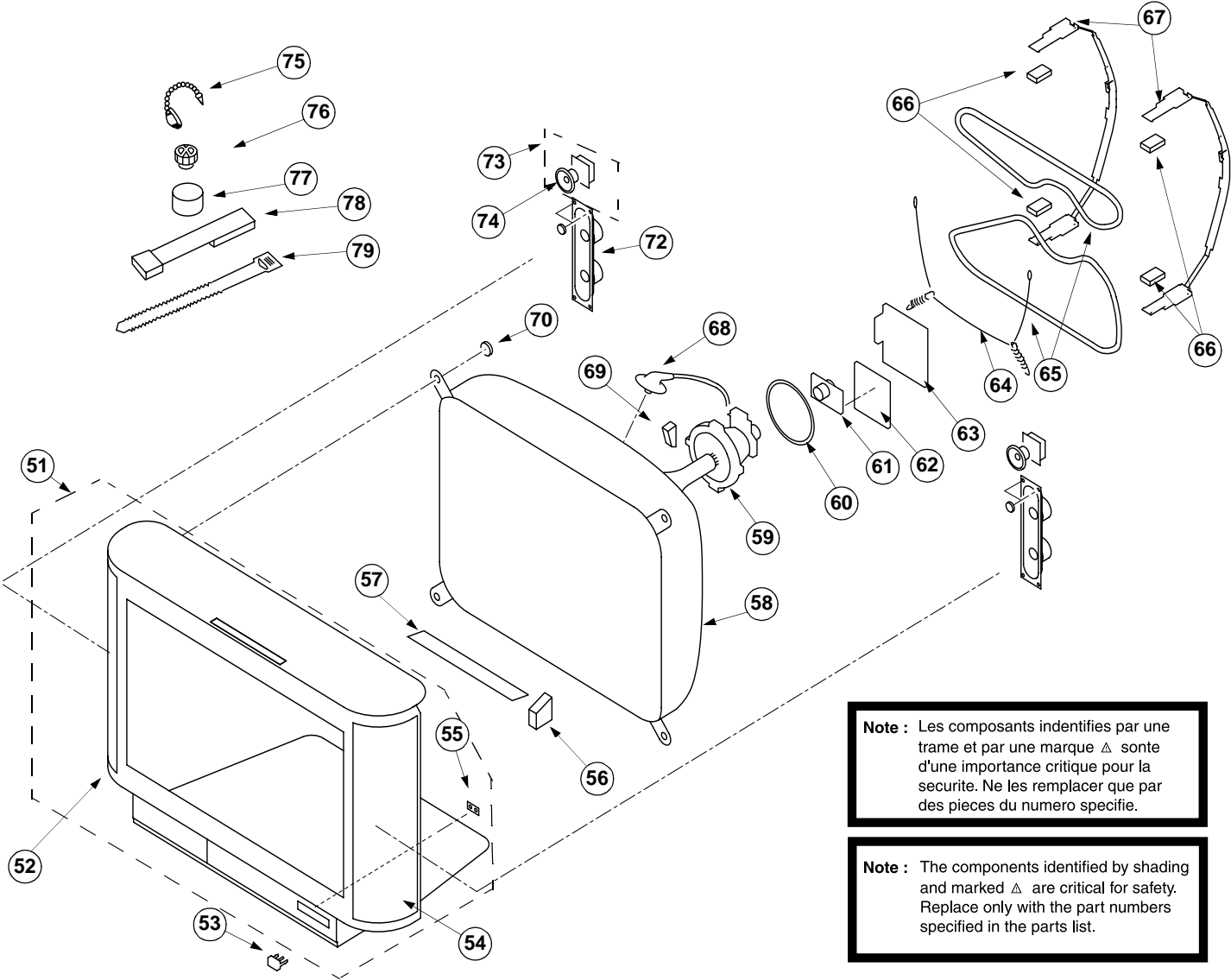
### 6-1. CHASSIS



REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
1	*A-1646-194-A	H3 BOARD, COMPLETE		13	*A-1640-348-A	E BOARD, COMPLETE (KV-28FC60/28FC60/Z)	
2	*4-205-007-11	BRACKET, H3		14	*A-1640-347-A	E BOARD, COMPLETE (KV-32FC60/32FC60/Z)	
3	*A-1646-193-A	H2 BOARD, COMPLETE		15	*A-1620-112-A	B1 BOARD, COMPLETE	
4	*4-205-005-11	BRACKET, H2		16	*4-204-477-03	BRACKET, J2	
5	*A-1624-084-A	F2 BOARD, COMPLETE		17	*A-1648-026-A	U BOARD, COMPLETE	
6	Δ 1-571-433-21	SWITCH, PUSH (AC POWER)		18	1-790-082-11	CABLE, RF	
7	*4-204-549-02	BRACKET, MAIN		19	1-693-340-11	TUNER/VIF (FR)	
8	*A-1640-328-A	D BOARD, COMPLETE (KV-28FC60/28FC60/Z)		20	Δ 1-769-185-21	CORD, POWER (WITH CONNECTOR)	
	*A-1640-323-A	D BOARD, COMPLETE (KV-32FC60/32FC60/Z)		21	*A-1624-083-A	F1 BOARD, COMPLETE	
9	Δ 1-453-319-11	TRANSFORMER ASSY, FLYBACK (NX-4512/U214)		22	*A-1634-047-A	M BOARD, COMPLETE	
10	*4-204-476-03	BRACKET, J1		23	*A-1631-051-A	A BOARD, COMPLETE	
11	*A-1651-119-A	J BOARD, COMPLETE		24	*A-1646-195-A	H4 BOARD, COMPLETE	
12	*A-1640-369-A	D1 BOARD, COMPLETE (KV-28FC60/28FC60/Z)			1-771-599-11	SWITCH, ARRAY (KV-28FC60/32FC60)	
	*A-1640-366-A	D1 BOARD, COMPLETE (KV-32FC60/32FC60/Z)			1-771-799-11	ARRAY, SWITCH (KV-28FC60/Z/32FC60/Z)	
				25	*A-1678-177-A	WOOFER ASSY SP	26-29

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
26	*4-204-776-21	BOX, WOOFER		30	4-205-036-11	COVER, REAR (KV-28FC60/28FC60/Z)	
27	7-685-663-71	SCREW (4X16), (+) BV TAPPING			4-205-002-11	COVER, REAR (KV-32FC60)	
28	1-529-417-11	SPEAKER (8CM)			4-205-002-01	COVER, REAR (KV-32FC60/Z)	
29	*4-204-775-21	BAFFLE WOOFER		31	4-039-358-01	SCREW (4x16)	

6-2. PICTURE TUBE



**Note :** Les composants indentifiés par une trame et par une marque  $\Delta$  sont d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

**Note :** The components identified by shading and marked  $\Delta$  are critical for safety. Replace only with the part numbers specified in the parts list.

REF. NO.	PART.NO	DESCRIPTION	REMARK
51	X-4200-533-2	BEZNET ASSY (KV-28FC60)	55
	X-4200-533-1	BEZNET ASSY (KV-28FC60/Z)	
	X-4200-513-2	BEZNET ASSY (KV-32FC60)	
	X-4200-513-1	BEZNET ASSY (KV-32FC60/Z)	
52	*X-4200-537-1	SPEAKER COVER ASSY, CLOTH (KV-28FC60/32FC60)	
53	4-205-004-11	BUTTON, POWER	
54	*X-4200-534-1	SPEAKER COVER ASSY (L) METAL (KV-28FC60/Z/32FC60/Z)	
	*X-4200-535-1	SPEAKER COVER ASSY (R) METAL (KV-28FC60/Z/32FC60/Z)	
55	4-205-003-01	LIGHT GUIDE	
56	*4-203-098-01	SUPPORTER, CRT (KV-32FC60/32FC60/Z)	

REF. NO.	PART.NO	DESCRIPTION	REMARK
57	4-203-128-41	SHEET, BLOTTING	
58	$\Delta$ 8-737-786-05	PICTURE TUBE (W66LLX060X) (SD-299) (KV-28FC60/28FC60/Z)	
	$\Delta$ 8-735-054-05	PICTURE TUBE (W76LLZ060X) (SD-302) (KV-32FC60/32FC60/Z)	
59	$\Delta$ 1-451-481-11	DEFLECTION YOKE (Y28RVC2) (KV-28FC60/32FC60/Z)	
	$\Delta$ 1-451-480-11	DEFLECTION YOKE (Y32RVC2) (KV-32FC60/32FC60/Z)	
60	1-452-896-11	COIL, NA ROTATION (RT200)	
61	$\Delta$ 8-453-011-11	NECK ASSY, NA299-M	
62	*A-1644-103-A	VM BOARD, COMPLETE	
63	*A-1638-132-A	C BOARD, COMPLETE	

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
64	4-200-433-01	SPRING, EXTENSION		72	1-529-154-11	SPEAKER (5.7X24CM)	
65	△ 1-416-466-11	COIL, DEMAGNETIC (KV-28FC60/28FC60/Z)		73	*A-1678-178-A	TWEETER SUB ASSEMBLY	74
	△ 1-416-769-11	COIL, DEMAGNETIC (KV-32FC60/32FC60/Z)		74	1-529-155-11	SPEAKER (4.2X2.7CM)	
66	*4-203-390-21	CUSHION, DGC (KV-28FC60/28FC60/Z)		75	4-308-870-00	CLIP, LEAD WIRE	
	*4-203-390-31	CUSHION, DGC (KV-32FC60/32FC60/Z)		76	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM	
67	*4-057-303-01	HOLDER, DGC (KV-28FC60/28FC60/Z)		77	1-452-032-00	MAGNET, DISK; 10MM	
	*4-059-569-01	HOLDER, DGC (KV-32FC60/32FC60/Z)		78	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
68	△ 1-251-317-63	CAP ASSY, HIGH-VOLTAGE		79	3-701-007-00	BAND, BINDING	
69	4-203-658-01	SPACER, DY					
70	4-036-188-01	SCREW, SELF TAPPING (KV-28FC60/28FC60/Z)					
	4-204-225-01	PT SCREW (KV-32FC60/32FC60/Z)					

## SECTION 7 ELECTRICAL PARTS LIST

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Parts indicated (#) on the Schematic Diagram are not used in this model and therefore do not appear in the Parts List.



REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
<b>*A-1620-112-A B1 Board, Complete</b>				C2351	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
< CAPACITOR >				C2354	1-126-934-11	ELECT 220MF	20% 16V
C2301	1-126-934-11	ELECT 220MF	20% 16V	C2356	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2302	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2357	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2303	1-126-964-11	ELECT 10MF	20% 50V	C2358	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2304	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C2361	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2305	1-163-259-91	CERAMIC CHIP 220PF	5% 50V	C2362	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2306	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C2363	1-126-934-11	ELECT 220MF	20% 16V
C2307	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2364	1-163-239-11	CERAMIC CHIP 33PF	5% 50V
C2308	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C2366	1-163-239-11	CERAMIC CHIP 33PF	5% 50V
C2309	1-126-934-11	ELECT 220MF	20% 16V	C2367	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2311	1-126-963-11	ELECT 4.7MF	20% 50V	C2368	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2312	1-126-963-11	ELECT 4.7MF	20% 50V	C2371	1-163-239-11	CERAMIC CHIP 33PF	5% 50V
C2313	1-126-963-11	ELECT 4.7MF	20% 50V	C2372	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2314	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C2374	1-163-239-11	CERAMIC CHIP 33PF	5% 50V
C2315	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V	C2377	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2316	1-110-501-11	CERAMIC CHIP 0.33MF	10% 16V	C2378	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2317	1-162-638-11	CERAMIC CHIP 1MF	16V	C2380	1-163-145-00	CERAMIC CHIP 0.0015MF	5% 50V
C2318	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V	C2381	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2319	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V	C2382	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2320	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V	C2383	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2323	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C2385	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2324	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2387	1-136-250-11	FILM 0.001MF	2% 100V
C2325	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2388	1-136-479-11	FILM 0.001MF	1% 100V
C2327	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2389	1-163-085-00	CERAMIC CHIP 2PF	0.25PF 50V
C2328	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2390	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C2329	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2391	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C2330	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2704	1-126-934-11	ELECT 220MF	20% 16V
C2331	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2705	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C2332	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	< CONNECTOR >			
C2333	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	CN2100	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	
C2334	1-126-964-11	ELECT 10MF	20% 50V	< FILTER >			
C2335	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FL2300	1-236-071-11	ENCAPSULATED COMPONENT	
C2337	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	FL2301	1-233-767-21	FILTER	
C2338	1-126-934-11	ELECT 220MF	20% 16V	FL2302	1-236-071-11	ENCAPSULATED COMPONENT	
C2339	1-164-005-11	CERAMIC CHIP 0.47MF	25V	FL2303	1-236-071-11	ENCAPSULATED COMPONENT	
C2340	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FL2308	1-233-736-21	FILTER, EMI	
C2342	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	< IC >			
C2343	1-126-961-11	ELECT 2.2MF	20% 50V	IC2300	8-759-991-41	IC LM78L05ACZ	
C2344	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	IC2301	8-759-295-09	IC TLC2932IPW	
C2345	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	IC2302	8-759-257-59	IC TDA8755T-T	
C2346	1-126-964-11	ELECT 10MF	20% 50V	IC2303	8-759-438-64	IC SAA4952WP/V1	
C2347	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	IC2304	8-759-546-02	IC SAA4995WP-V1-T3	
C2348	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	IC2305	8-759-295-09	IC TLC2932IPW	
C2349	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C2350	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				

B1

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
IC2307	8-759-546-04	IC SAA4991WP-V1-T3		R2341	1-216-295-91	SHORT	0
IC2308	8-759-572-55	IC P83C654EBA/585		R2345	1-216-025-91	RES,CHIP	100 5% 1/10W
IC2310	8-759-991-41	IC LM78L05ACZ		R2348	1-216-089-91	RES,CHIP	47K 5% 1/10W
IC2311	8-759-467-19	IC SDA9280B22		R2355	1-216-295-91	SHORT	0
IC2312	8-759-576-70	IC MSM5412222A-25JS-DR1		R2356	1-216-063-91	RES,CHIP	3.9K 5% 1/10W
IC2313	8-759-576-70	IC MSM5412222A-25JS-DR1		R2358	1-216-295-91	SHORT	0
IC2314	8-759-439-26	IC SN74LS221D		R2359	1-216-001-00	RES,CHIP	10 5% 1/10W
< COIL >				R2360	1-216-085-00	RES,CHIP	33K 5% 1/10W
L2300	1-408-597-31	INDUCTOR	3.3UH	R2361	1-216-085-00	RES,CHIP	33K 5% 1/10W
L2301	1-410-435-21	INDUCTOR	220UH	R2362	1-216-025-91	RES,CHIP	100 5% 1/10W
L2302	1-410-435-21	INDUCTOR	220UH	R2363	1-216-025-91	RES,CHIP	100 5% 1/10W
L2303	1-408-597-31	INDUCTOR	3.3UH	R2364	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
L2304	1-414-186-31	INDUCTOR	33UH	R2365	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
L2305	1-408-603-31	INDUCTOR	10UH	R2366	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
L2306	1-414-186-31	INDUCTOR	33UH	R2367	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
L2307	1-414-384-11	INDUCTOR	5.6UH	R2368	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
< TRANSISTOR >				R2369	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
Q2301	1-801-806-11	TRANSISTOR DTC144EKA		R2370	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
Q2302	1-801-806-11	TRANSISTOR DTC144EKA		R2371	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
Q2303	1-801-806-11	TRANSISTOR DTC144EKA		R2372	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
Q2304	1-801-806-11	TRANSISTOR DTC144EKA		R2373	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
Q2305	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R2374	1-216-049-91	RES,CHIP	1K 5% 1/10W
Q2306	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R2375	1-216-049-91	RES,CHIP	1K 5% 1/10W
Q2307	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R2376	1-216-049-91	RES,CHIP	1K 5% 1/10W
< RESISTOR >				R2377	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2300	1-216-051-00	RES,CHIP	1.2K 5% 1/10W	R2378	1-216-029-00	RES,CHIP	150 5% 1/10W
R2301	1-216-053-00	RES,CHIP	1.5K 5% 1/10W	R2379	1-216-076-00	RES,CHIP	13K 5% 1/10W
R2302	1-216-067-00	RES,CHIP	5.6K 5% 1/10W	R2380	1-216-073-00	RES,CHIP	10K 5% 1/10W
R2303	1-216-059-00	RES,CHIP	2.7K 5% 1/10W	R2381	1-216-021-00	RES,CHIP	68 5% 1/10W
R2304	1-216-051-00	RES,CHIP	1.2K 5% 1/10W	R2382	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2305	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R2383	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2306	1-216-295-91	SHORT	0	R2384	1-216-021-00	RES,CHIP	68 5% 1/10W
R2307	1-216-049-91	RES,CHIP	1K 5% 1/10W	R2385	1-216-037-00	RES,CHIP	330 5% 1/10W
R2310	1-216-049-91	RES,CHIP	1K 5% 1/10W	R2386	1-216-295-91	SHORT	0
R2312	1-216-049-91	RES,CHIP	1K 5% 1/10W	R2387	1-216-027-00	RES,CHIP	120 5% 1/10W
R2313	1-216-047-91	RES,CHIP	820 5% 1/10W	R2388	1-216-037-00	RES,CHIP	330 5% 1/10W
R2314	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R2389	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R2315	1-216-121-91	RES,CHIP	1M 5% 1/10W	R2390	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2316	1-216-073-00	RES,CHIP	10K 5% 1/10W	R2391	1-216-025-91	RES,CHIP	100 5% 1/10W
R2317	1-216-025-91	RES,CHIP	100 5% 1/10W	R2392	1-216-295-91	SHORT	0
R2320	1-216-295-91	SHORT	0	R2393	1-216-025-91	RES,CHIP	100 5% 1/10W
R2321	1-216-295-91	SHORT	0	R2394	1-216-025-91	RES,CHIP	100 5% 1/10W
R2337	1-216-049-91	RES,CHIP	1K 5% 1/10W	R2395	1-216-295-91	SHORT	0
R2338	1-216-295-91	SHORT	0	R2400	1-216-295-91	SHORT	0
				R2403	1-216-295-91	SHORT	0
				R2404	1-216-295-91	SHORT	0
				R2410	1-216-037-00	RES,CHIP	330 5% 1/10W

The components identified by shading and marked  $\Delta$  are critical for safety  
Replace only with the part number specified.

**B1**

**F1**

**F2**

**A**

REF. NO.	PART.NO	DESCRIPTION	REMARK
R2411	1-216-037-00	RES,CHIP 330 5% 1/10W	
R2412	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R2413	1-216-664-11	METAL CHIP 3.6K 0.50% 1/10W	
R2415	1-216-295-91	SHORT 0	
R2701	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2702	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2703	1-216-025-91	RES,CHIP 100 5% 1/10W	
R2704	1-216-025-91	RES,CHIP 100 5% 1/10W	
R2705	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2706	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2711	1-216-001-00	RES,CHIP 10 5% 1/10W	
R2713	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2714	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R2715	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2716	1-216-025-91	RES,CHIP 100 5% 1/10W	
R2717	1-216-295-91	SHORT 0	
R2718	1-216-295-91	SHORT 0	
R2719	1-216-295-91	SHORT 0	
R2720	1-216-295-91	SHORT 0	
R2721	1-216-295-91	SHORT 0	
R2722	1-216-295-91	SHORT 0	
R2723	1-216-027-00	RES,CHIP 120 5% 1/10W	
R2724	1-216-295-91	SHORT 0	
R2725	1-216-009-91	RES,CHIP 22 5% 1/10W	
R2726	1-216-295-91	SHORT 0	
R2727	1-216-295-91	SHORT 0	
R2728	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2734	1-216-295-91	SHORT 0	
R2735	1-216-021-00	RES,CHIP 68 5% 1/10W	
R2736	1-216-295-91	SHORT 0	
R2738	1-216-025-91	RES,CHIP 100 5% 1/10W	
< CRYSTAL >			
X2300	1-579-175-11	VIBRATOR, CERAMIC	

**\*A-1624-083-A F1 Board, Complete**

\*4-374-846-01 COVER, CAPACITOR, CAP TYPE

< CAPACITOR >

C7626  $\Delta$  1-136-527-12 FILM 0.47MF 20% 300V

< CONNECTOR >

CN7611  $\Delta$  \*1-580-844-11 PIN, CONNECTOR (POWER)

CN7622 1-695-915-11 TAB (CONTACT)

CN7633  $\Delta$  \*1-580-843-11 PIN, CONNECTOR (POWER)

REF. NO. PART.NO DESCRIPTION REMARK

< FUSE >

F7626  $\Delta$  1-532-299-00 FUSE  
 $\Delta$  \*1-533-725-11 HOLDER, FUSE (F7626)

< FILTER >

LF7627  $\Delta$  1-433-488-11 TRANSFORMER, LINE FILTER

< RESISTOR >

R7626  $\Delta$  1-202-885-91 SOLID 1M 20% 1/2W  
R7627  $\Delta$  1-220-797-11 CEMENTED 0.47 5% 10W F

< VARISTOR >

VDR7626  $\Delta$  1-801-268-51 VARISTOR ERZV14D471

**\*A-1624-084-A F2 Board, Complete**

< CONNECTOR >

CN7700  $\Delta$  \*1-691-291-11 PIN, CONNECTOR (PC BOARD) 5P  
CN7733  $\Delta$  \*1-580-843-11 PIN, CONNECTOR (POWER)

< SWITCH >

S7751  $\Delta$  1-571-433-21 SWITCH, PUSH (AC POWER)

**\*A-1631-051-A A Board, Complete**

4-382-854-11 SCREW (M3X10), P, SW (+)

\*4-931-401-01 HEAT SINK, V.OUT

< CAPACITOR >

C1100 1-104-664-11 ELECT 47MF 20% 25V  
C1101 1-126-943-11 ELECT 2200MF 20% 25V  
C1126 1-162-568-11 CERAMIC CHIP 0.33MF 10% 16V  
C1127 1-137-194-81 FILM 0.47MF 5% 50V  
C1128 1-163-135-00 CERAMIC CHIP 560PF 5% 50V

C1129 1-115-339-11 CERAMIC CHIP 0.1MF 10% 50V  
C1130 1-163-017-00 CERAMIC CHIP 0.0047MF 10% 50V  
C1131 1-163-251-11 CERAMIC CHIP 100PF 5% 50V  
C1132 1-163-021-91 CERAMIC CHIP 0.01MF 10% 50V  
C1133 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

C1134 1-126-961-11 ELECT 2.2MF 20% 50V  
C1135 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1136 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
C1137 1-126-953-11 ELECT 2200MF 20% 35V  
C1138 1-126-953-11 ELECT 2200MF 20% 35V

C1139 1-104-329-11 CERAMIC CHIP 0.1MF 10% 50V  
C1140 1-111-142-91 ELECT 150MF 20% 63V

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C1141	1-164-505-11	CERAMIC CHIP 2.2MF	16V	CN1666	1-695-915-11	TAB (CONTACT)	
C1151	1-162-568-11	CERAMIC CHIP 0.33MF	10% 16V	CN1700	*1-568-879-11	PIN, CONNECTOR 4P	
C1152	1-137-194-81	FILM 0.47MF	5% 50V	CN1701	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P	
C1153	1-163-135-00	CERAMIC CHIP 560PF	5% 50V	CN1702	*1-568-880-51	PIN, CONNECTOR 5P	
C1154	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V	CN1703	1-764-334-11	PLUG, CONNECTOR 11P	
C1155	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	CN1801	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P	
C1156	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	CN1811	1-695-915-11	TAB (CONTACT)	
C1157	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	CN1901	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
C1158	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1159	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V			< DIODE >	
C1160	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D1100	8-719-914-43	DIODE DAN202K	
C1161	1-104-329-11	CERAMIC CHIP 0.1MF	10% 50V	D1101	8-719-914-44	DIODE DAP202K	
C1162	1-111-142-91	ELECT 150MF	20% 63V	D1102	8-719-914-43	DIODE DAN202K	
C1163	1-164-505-11	CERAMIC CHIP 2.2MF	16V	D1103	8-719-914-43	DIODE DAN202K	
C1176	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D1104	8-719-914-43	DIODE DAN202K	
C1177	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D1201	8-719-976-96	DIODE DTZ4.7C	
C1178	1-126-964-11	ELECT 10MF	20% 50V	D1401	8-719-069-56	DIODE UDZS-TE17-6.2B	
C1179	1-126-964-11	ELECT 10MF	20% 50V	D1402	8-719-069-56	DIODE UDZS-TE17-6.2B	
C1180	1-126-952-11	ELECT 1000MF	20% 35V	D1403	8-719-069-56	DIODE UDZS-TE17-6.2B	
C1181	1-126-952-11	ELECT 1000MF	20% 35V	D1404	8-719-069-56	DIODE UDZS-TE17-6.2B	
C1182	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D1405	8-719-914-44	DIODE DAP202K	
C1183	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D1406	8-719-914-44	DIODE DAP202K	
C1184	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	D1407	8-719-069-55	DIODE UDZS-TE17-5.6B	
C1185	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	D1408	8-719-069-55	DIODE UDZS-TE17-5.6B	
C1226	1-104-661-91	ELECT 330MF	20% 16V	D1626	8-719-914-43	DIODE DAN202K	
C1227	1-115-340-91	CERAMIC CHIP 0.22	10% 25V	D1627	8-719-914-43	DIODE DAN202K	
C1326	1-163-059-91	CERAMIC CHIP 0.01MF	10% 50V	D1629	8-719-914-43	DIODE DAN202K	
C1327	1-126-934-11	ELECT 220MF	20% 10V			< FERRITE BEAD >	
C1328	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	FB1126	1-535-303-00	LEAD, JUMPER (5.0MM)	
C1601	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FB1127	1-410-397-21	FERRITE 1.1UH	
C1602	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FB1151	1-535-303-00	LEAD, JUMPER (5.0MM)	
C1603	1-126-933-11	ELECT 100MF	20% 16V	FB1152	1-410-397-21	FERRITE 1.1UH	
C1604	1-126-933-11	ELECT 100MF	20% 16V	FB1901	1-414-553-11	FERRITE 0UH	
C1605	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FB1903	1-414-553-11	FERRITE 0UH	
C1607	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FB1904	1-414-553-11	FERRITE 0UH	
C1608	1-126-934-11	ELECT 220MF	20% 16V	FB1905	1-414-553-11	FERRITE 0UH	
C1610	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FB1906	1-414-553-11	FERRITE 0UH	
C1611	1-126-933-11	ELECT 100MF	20% 16V	FB1907	1-414-553-11	FERRITE 0UH	
C1615	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V			< IC >	
		< CONNECTOR >		IC1126	8-759-544-25	IC TDA7482	
CN1111	*1-564-520-11	PLUG, CONNECTOR 5P		IC1151	8-759-544-25	IC TDA7482	
CN1200	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P		IC1176	8-759-333-24	IC LM1876TF	
CN1401	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P		IC1400	8-752-072-94	IC CXA1875AM-T4	
CN1600	1-900-903-64	CONNECTOR ASSY 20P		IC1601	8-759-574-76	IC KA78R05-SYDTU	
CN1601	1-900-903-64	CONNECTOR ASSY 20P					
CN1602	1-900-903-64	CONNECTOR ASSY 20P		IC1602	8-759-574-78	IC KA278R05-YDTU	

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
IC1604	8-759-544-13	IC KA78R09TU		R1153	1-216-041-00	RES,CHIP 470 5%	1/10W
	< COIL >			R1176	1-216-063-91	RES,CHIP 3.9K 5%	1/10W
L1126	1-416-857-11	INDUCTOR 65UH		R1177	1-216-063-91	RES,CHIP 3.9K 5%	1/10W
L1127	1-414-158-11	INDUCTOR 2.2UH		R1178	1-216-357-00	METAL OXIDE 4.7 5%	1W F
L1128	1-414-158-11	INDUCTOR 2.2UH		R1179	1-216-357-00	METAL OXIDE 4.7 5%	1W F
L1151	1-416-857-11	INDUCTOR 65UH		R1180	1-216-081-00	RES,CHIP 22K 5%	1/10W
L1152	1-414-158-11	INDUCTOR 2.2UH		R1181	1-216-045-00	RES,CHIP 680 5%	1/10W
L1153	1-414-158-11	INDUCTOR 2.2UH		R1182	1-216-081-00	RES,CHIP 22K 5%	1/10W
L1326	1-414-183-41	INDUCTOR 10UH		R1183	1-216-045-00	RES,CHIP 680 5%	1/10W
	< TRANSISTOR >			R1184	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q1100	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R1185	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q1101	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1201	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q1201	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1202	1-216-083-00	RES,CHIP 27K 5%	1/10W
Q1202	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1203	1-216-083-00	RES,CHIP 27K 5%	1/10W
Q1204	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1204	1-216-071-00	RES,CHIP 8.2K 5%	1/10W
Q1226	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1205	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q1227	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1206	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q1229	8-729-027-38	TRANSISTOR DTA144EKA-T146		R1208	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q1326	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1209	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
Q1327	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R1210	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q1328	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1227	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q1329	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R1228	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q1400	8-729-046-47	TRANSISTOR KSC2500-BTA		R1229	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q1601	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1230	1-216-055-00	RES,CHIP 1.8K 5%	1/10W
Q1626	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1232	1-216-295-91	SHORT 0	
	< RESISTOR >			R1233	1-216-049-91	RES,CHIP 1K 5%	1/10W
JR1069	1-216-190-91	RES,CHIP 470 5%	1/8W	R1326	1-216-025-91	RES,CHIP 100 5%	1/10W
JR1204	1-216-296-91	SHORT 0		R1327	1-216-025-91	RES,CHIP 100 5%	1/10W
JR1601	1-216-296-91	SHORT 0		R1328	1-216-073-00	RES,CHIP 10K 5%	1/10W
R1001	1-216-295-91	SHORT 0		R1329	1-216-025-91	RES,CHIP 100 5%	1/10W
R1002	1-216-295-91	SHORT 0		R1330	1-216-041-00	RES,CHIP 470 5%	1/10W
R1003	1-216-295-91	SHORT 0		R1331	1-216-041-00	RES,CHIP 470 5%	1/10W
R1004	1-216-295-91	SHORT 0		R1332	1-216-041-00	RES,CHIP 470 5%	1/10W
R1005	1-216-295-91	SHORT 0		R1333	1-216-075-00	RES,CHIP 12K 5%	1/10W
R1006	1-216-295-91	SHORT 0		R1334	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
R1100	1-216-025-91	RES,CHIP 100 5%	1/10W	R1335	1-216-025-91	RES,CHIP 100 5%	1/10W
R1101	1-216-057-00	RES,CHIP 2.2K 5%	1/10W	R1336	1-216-041-00	RES,CHIP 470 5%	1/10W
R1103	1-216-089-91	RES,CHIP 47K 5%	1/10W	R1337	1-216-041-00	RES,CHIP 470 5%	1/10W
R1104	1-216-296-91	SHORT 0		R1338	1-216-001-00	RES,CHIP 10 5%	1/10W
R1126	1-216-631-11	METAL CHIP 150 0.50%	1/10W	R1339	1-216-041-00	RES,CHIP 470 5%	1/10W
R1127	1-216-073-00	RES,CHIP 10K 5%	1/10W	R1340	1-216-043-91	RES,CHIP 560 5%	1/10W
R1128	1-216-041-00	RES,CHIP 470 5%	1/10W	R1342	1-216-073-00	RES,CHIP 10K 5%	1/10W
R1151	1-216-631-11	METAL CHIP 150 0.50%	1/10W	R1400	1-216-053-00	RES,CHIP 1.5K 5%	1/10W
R1152	1-216-075-00	RES,CHIP 12K 5%	1/10W	R1401	1-216-081-00	RES,CHIP 22K 5%	1/10W
				R1403	1-216-295-91	SHORT 0	
				R1404	1-216-295-91	SHORT 0	
				R1405	1-216-025-91	RES,CHIP 100 5%	1/10W

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REF.NO.	PART.NO	DESCRIPTION	REMARK		
R1407	1-216-025-91	RES,CHIP	100	5%	1/10W
R1408	1-216-025-91	RES,CHIP	100	5%	1/10W
R1409	1-216-025-91	RES,CHIP	100	5%	1/10W
R1410	1-216-025-91	RES,CHIP	100	5%	1/10W
R1411	1-216-295-91	SHORT	0		
R1412	1-216-295-91	SHORT	0		
R1601	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1602	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R1603	1-216-025-91	RES,CHIP	100	5%	1/10W
R1605	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1609	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1610	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1615	1-216-025-91	RES,CHIP	100	5%	1/10W
R1616	1-216-304-11	RES,CHIP	3.3	5%	1/10W
R1618	1-216-295-91	SHORT	0		
R1621	1-216-027-00	RES,CHIP	120	5%	1/10W
R1622	1-216-029-00	RES,CHIP	150	5%	1/10W
R1625	1-216-295-91	SHORT	0		

&lt; TUNER &gt;

TU1326 1-693-340-11 TUNER/VIF (FR)

**\*A-1634-047-A M Board, Complete**

&lt; CAPACITOR &gt;

C9100	1-115-340-11	CERAMIC CHIP 0.22MF	10%	25V
C9101	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C9102	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C9104	1-104-664-11	ELECT 47MF	20%	25V
C9105	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9110	1-165-321-11	CERAMIC CHIP 0.68MF	10%	16V
C9111	1-164-157-11	CERAMIC CHIP 0.068MF	10%	25V
C9112	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9113	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9114	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9115	1-115-340-11	CERAMIC CHIP 0.22MF	10%	25V
C9117	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9118	1-104-664-11	ELECT 47MF	20%	25V
C9119	1-163-259-91	CERAMIC CHIP 220PF	5%	50V
C9121	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C9122	1-115-340-11	CERAMIC CHIP 0.22MF	10%	25V
C9123	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9124	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9125	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9126	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C9127	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C9128	1-163-105-00	CERAMIC CHIP 33PF	5%	50V

C9129	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C9130	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C9131	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C9132	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9400	1-115-340-11	CERAMIC CHIP 0.22MF	10%	25V
C9500	1-104-664-11	ELECT 47MF	20%	25V
C9502	1-104-664-11	ELECT 47MF	20%	25V
C9503	1-126-964-11	ELECT 10MF	20%	50V
C9504	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9505	1-104-665-11	ELECT 100MF	20%	25V
C9506	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C9507	1-115-340-11	CERAMIC CHIP 0.22MF	10%	25V
C9508	1-115-340-11	CERAMIC CHIP 0.22MF	10%	25V
C9509	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C9510	1-115-340-11	CERAMIC CHIP 0.22MF	10%	25V
C9511	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9512	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9513	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C9514	1-163-235-11	CERAMIC CHIP 22PF	5%	50V
C9515	1-163-235-11	CERAMIC CHIP 22PF	5%	50V
C9516	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C9517	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C9518	1-115-340-11	CERAMIC CHIP 0.22MF	10%	25V
C9519	1-126-964-11	ELECT 10MF	20%	50V
C9520	1-163-251-11	CERAMIC CHIP 100PF	5%	50V

&lt; CONNECTOR &gt;

CN9101 1-695-301-11 CONNECTOR, BOARD TO BOARD 40P

&lt; DIODE &gt;

D9100	8-719-988-61	DIODE 1SS355TE-17
D9101	8-719-988-61	DIODE 1SS355TE-17
D9102	8-719-988-61	DIODE 1SS355TE-17
D9103	8-719-988-61	DIODE 1SS355TE-17
D9104	8-719-069-57	DIODE UDZS-TE17-6.8B
D9105	8-719-914-43	DIODE DAN202K
D9109	8-719-105-91	DIODE RD5.6M-B2

&lt; FILTER &gt;

FL9101	1-236-071-11	ENCAPSULATED COMPONENT
FL9500	1-236-071-11	ENCAPSULATED COMPONENT
FL9501	1-236-071-11	ENCAPSULATED COMPONENT

&lt; IC &gt;

IC9100	8-759-988-13	IC LM393PS
IC9104	8-759-259-18	IC MB3793-42PNF
IC9105	8-759-544-30	IC SAB-C161R1-LM

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
IC9107	8-759-395-27	IC TC55257DFTL-70V		R9119	1-216-073-00	RES,CHIP 10K 5%	1/10W
IC9108	8-759-531-64	IC M24C32-BN6		R9120	1-216-073-00	RES,CHIP 10K 5%	1/10W
IC9109	8-759-597-97	IC M27C800-100K1-AE515		R9121	1-216-017-91	RES,CHIP 47 5%	1/10W
IC9110	8-759-559-96	IC HEF4094BT		R9122	1-216-049-91	RES,CHIP 1K 5%	1/10W
IC9500	8-759-034-47	IC MC74F00M-T2		R9123	1-216-073-00	RES,CHIP 10K 5%	1/10W
IC9501	8-759-483-52	IC HYB514400BJ-60		R9127	1-216-049-91	RES,CHIP 1K 5%	1/10W
IC9502	8-759-438-62	IC SDA5275		R9138	1-216-049-91	RES,CHIP 1K 5%	1/10W
< COIL >				R9140	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
L9400	1-412-029-11	INDUCTOR CHIP 10UH		R9141	1-216-049-91	RES,CHIP 1K 5%	1/10W
L9401	1-412-029-11	INDUCTOR CHIP 10UH		R9142	1-216-041-00	RES,CHIP 470 5%	1/10W
< TRANSISTOR >				R9143	1-216-049-91	RES,CHIP 1K 5%	1/10W
Q9100	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R9144	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
Q9101	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R9145	1-216-049-91	RES,CHIP 1K 5%	1/10W
Q9102	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R9146	1-216-049-91	RES,CHIP 1K 5%	1/10W
Q9103	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R9147	1-216-049-91	RES,CHIP 1K 5%	1/10W
Q9105	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R9148	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q9106	8-729-027-46	TRANSISTOR DTC114YKA-T146		R9149	1-216-025-91	RES,CHIP 100 5%	1/10W
Q9107	8-729-027-46	TRANSISTOR DTC114YKA-T146		R9150	1-216-025-91	RES,CHIP 100 5%	1/10W
Q9108	8-729-027-46	TRANSISTOR DTC114YKA-T146		R9151	1-216-025-91	RES,CHIP 100 5%	1/10W
Q9109	8-729-027-46	TRANSISTOR DTC114YKA-T146		R9153	1-216-025-91	RES,CHIP 100 5%	1/10W
Q9110	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R9159	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
Q9500	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R9161	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
Q9501	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R9162	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
Q9502	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R9164	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
Q9503	1-801-806-11	TRANSISTOR DTC144EKA		R9166	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q9504	1-801-806-11	TRANSISTOR DTC144EKA		R9168	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
< RESISTOR >				R9169	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
R9100	1-216-073-00	RES,CHIP 10K 5%	1/10W	R9172	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
R9101	1-216-033-00	RES,CHIP 220 5%	1/10W	R9173	1-216-295-91	SHORT 0	
R9102	1-216-033-00	RES,CHIP 220 5%	1/10W	R9174	1-216-025-91	RES,CHIP 100 5%	1/10W
R9103	1-216-025-91	RES,CHIP 100 5%	1/10W	R9175	1-216-025-91	RES,CHIP 100 5%	1/10W
R9104	1-216-073-00	RES,CHIP 10K 5%	1/10W	R9176	1-216-025-91	RES,CHIP 100 5%	1/10W
R9105	1-216-073-00	RES,CHIP 10K 5%	1/10W	R9177	1-216-025-91	RES,CHIP 100 5%	1/10W
R9107	1-216-025-91	RES,CHIP 100 5%	1/10W	R9178	1-216-025-91	RES,CHIP 100 5%	1/10W
R9108	1-216-025-91	RES,CHIP 100 5%	1/10W	R9184	1-216-025-91	RES,CHIP 100 5%	1/10W
R9109	1-216-073-00	RES,CHIP 10K 5%	1/10W	R9185	1-216-025-91	RES,CHIP 100 5%	1/10W
R9110	1-216-081-00	RES,CHIP 22K 5%	1/10W	R9186	1-216-025-91	RES,CHIP 100 5%	1/10W
R9111	1-216-025-91	RES,CHIP 100 5%	1/10W	R9187	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
R9112	1-216-025-91	RES,CHIP 100 5%	1/10W	R9188	1-216-025-91	RES,CHIP 100 5%	1/10W
R9113	1-216-033-00	RES,CHIP 220 5%	1/10W	R9189	1-216-025-91	RES,CHIP 100 5%	1/10W
R9114	1-216-083-00	RES,CHIP 27K 5%	1/10W	R9190	1-216-025-91	RES,CHIP 100 5%	1/10W
R9115	1-216-081-00	RES,CHIP 22K 5%	1/10W	R9191	1-216-025-91	RES,CHIP 100 5%	1/10W
R9116	1-216-073-00	RES,CHIP 10K 5%	1/10W	R9192	1-216-025-91	RES,CHIP 100 5%	1/10W
R9117	1-216-073-00	RES,CHIP 10K 5%	1/10W	R9193	1-216-097-91	RES,CHIP 100K 5%	1/10W
				R9194	1-216-097-91	RES,CHIP 100K 5%	1/10W
				R9195	1-216-097-91	RES,CHIP 100K 5%	1/10W
				R9196	1-216-073-00	RES,CHIP 10K 5%	1/10W



REF.NO. PART.NO DESCRIPTION REMARK

R9197 1-216-073-00 RES,CHIP 10K 5% 1/10W  
R9500 1-216-295-91 SHORT 0  
R9501 1-216-295-91 SHORT 0  
R9502 1-216-295-91 SHORT 0  
R9504 1-216-041-00 RES,CHIP 470 5% 1/10W

R9505 1-216-051-00 RES,CHIP 1.2K 5% 1/10W  
R9506 1-216-073-00 RES,CHIP 10K 5% 1/10W  
R9507 1-216-097-91 RES,CHIP 100K 5% 1/10W  
R9508 1-216-017-91 RES,CHIP 47 5% 1/10W  
R9509 1-216-049-91 RES,CHIP 1K 5% 1/10W

R9510 1-216-017-91 RES,CHIP 47 5% 1/10W  
R9511 1-216-049-91 RES,CHIP 1K 5% 1/10W  
R9512 1-216-017-91 RES,CHIP 47 5% 1/10W  
R9513 1-216-017-91 RES,CHIP 47 5% 1/10W  
R9514 1-216-017-91 RES,CHIP 47 5% 1/10W

R9515 1-216-295-91 SHORT 0  
R9516 1-216-295-91 SHORT 0  
R9517 1-216-295-91 SHORT 0  
R9518 1-216-049-91 RES,CHIP 1K 5% 1/10W  
R9519 1-216-039-00 RES,CHIP 390 5% 1/10W

R9520 1-216-039-00 RES,CHIP 390 5% 1/10W  
R9521 1-216-039-00 RES,CHIP 390 5% 1/10W  
R9522 1-216-295-91 SHORT 0  
R9523 1-216-295-91 SHORT 0  
R9524 1-216-295-91 SHORT 0

R9525 1-216-057-00 RES,CHIP 2.2K 5% 1/10W  
R9526 1-216-057-00 RES,CHIP 2.2K 5% 1/10W  
R9527 1-216-057-00 RES,CHIP 2.2K 5% 1/10W  
R9528 1-216-025-91 RES,CHIP 100 5% 1/10W  
R9529 1-216-025-91 RES,CHIP 100 5% 1/10W

R9530 1-216-025-91 RES,CHIP 100 5% 1/10W  
R9531 1-216-295-91 SHORT 0

< CRYSTAL >

X9101 1-781-107-21 VIBRATOR, SERAMIC  
X9500 1-760-551-21 VIBRATOR, CERAMIC

**\*A-1638-132-A C Board, Complete**

4-382-854-11 SCREW (M3X10), P, SW (+)

< CAPACITOR >

C5301 1-102-129-00 CERAMIC 0.01MF 10% 50V  
C5302 1-128-528-11 ELECT 470MF 20% 16V  
C5304 1-107-666-11 ELECT 1MF 20% 350V  
C5305 1-136-207-11 FILM 0.047MF 10% 400V  
C5306 1-102-157-00 CERAMIC 560PF 10% 500V

REF.NO. PART.NO DESCRIPTION REMARK

C5325 1-102-959-91 CERAMIC 22PF 5% 50V  
C5326 1-102-157-00 CERAMIC 560PF 10% 500V  
C5327 1-102-129-00 CERAMIC 0.01MF 10% 50V  
C5328 1-128-528-11 ELECT 470MF 20% 16V  
C5329 1-107-967-11 ELECT 1MF 20% 400V

C5350 1-107-907-11 ELECT 22MF 20% 50V  
C5352 1-102-157-00 CERAMIC 560PF 10% 500V  
C5353 1-102-129-00 CERAMIC 0.01MF 10% 50V  
C5354 1-128-528-11 ELECT 470MF 20% 16V  
C5355 1-107-666-11 ELECT 1MF 20% 350V

C5356 1-136-207-11 FILM 0.047MF 10% 400V  
C5375 1-107-902-11 ELECT 1MF 20% 50V  
C5377 1-162-115-00 CERAMIC 330PF 10% 2KV  
C5378 1-162-116-00 CERAMIC 680PF 10% 2KV  
C5379 1-162-114-00 CERAMIC 0.0047MF 2KV

C5380 1-107-652-11 ELECT 10MF 20% 250V  
C5381 1-162-116-00 CERAMIC 680PF 10% 2KV  
C5382 1-162-114-00 CERAMIC 0.0047MF 2KV

< CONNECTOR >

CN5400 \*1-564-511-11 PLUG, CONNECTOR 8P  
CN5511 1-695-915-11 TAB (CONTACT)  
CN5600 1-508-766-00 PIN, CONNECTOR (5MM PITCH) 4P

< DIODE >

D5300 8-719-911-19 DIODE 1SS119-25  
D5302 8-719-901-83 DIODE 1SS83  
D5325 8-719-911-19 DIODE 1SS119-25  
D5326 8-719-923-60 DIODE MTZJ-T-77-9.1A  
D5327 8-719-901-83 DIODE 1SS83

D5350 8-719-911-19 DIODE 1SS119-25  
D5351 8-719-991-33 DIODE 1SS133T-77  
D5353 8-719-901-83 DIODE 1SS83  
D5375 8-719-991-33 DIODE 1SS133T-77  
D5376 8-719-991-33 DIODE 1SS133T-77

D5377 8-719-908-03 DIODE GP08D  
D5378 8-719-921-88 DIODE MTZJ-13B  
D5379 8-719-982-96 DIODE MTZJ-T-77-2.2A  
D5380 8-719-982-96 DIODE MTZJ-T-77-2.2A  
D5381 8-719-031-34 DIODE RGP02-20EG23

< IC >

IC5300 8-759-360-83 IC TDA6111Q/N4  
IC5325 8-759-360-83 IC TDA6111Q/N4  
IC5350 8-759-360-83 IC TDA6111Q/N4



The components identified by shading and marked  $\Delta$  are critical for safety  
Replace only with the part number specified.

C

D

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
< SOCKET >				R5359	1-247-863-91	CARBON 22K 5%	1/4W
J5375	$\Delta$ 1-540-071-22	SOCKET, CRT		R5360	1-249-424-11	CARBON 3.9K 5%	1/4W
< COIL >				R5361	1-249-431-11	CARBON 15K 5%	1/4W
L5300	1-414-932-21	INDUCTOR 4.7UH		R5375	1-249-435-11	CARBON 33K 5%	1/4W
L5325	1-414-932-21	INDUCTOR 4.7UH		R5376	1-249-429-11	CARBON 10K 5%	1/4W
L5350	1-414-932-21	INDUCTOR 4.7UH		R5377	1-249-430-11	CARBON 12K 5%	1/4W
L5375	1-414-938-21	INDUCTOR 47UH		R5378	1-249-429-11	CARBON 10K 5%	1/4W
L5376	1-532-637-00	LINK, IC 1A (ICP-F25)		R5379	1-249-438-11	CARBON 56K 5%	1/4W
L5377	1-414-183-41	INDUCTOR 10UH		R5380	1-247-863-91	CARBON 22K 5%	1/4W
< TRANSISTOR >				R5381	1-249-420-11	CARBON 1.8K 5%	1/4W
Q5300	8-729-255-12	TRANSISTOR 2SC2551-0		R5382	1-202-549-00	SOLID 100 20%	1/2W
Q5325	8-729-255-12	TRANSISTOR 2SC2551-0		R5383	1-216-399-00	METAL OXIDE 6.8 5%	3W F
Q5350	8-729-029-56	TRANSISTOR DTA144ESA		R5384	1-216-399-00	METAL OXIDE 6.8 5%	3W F
Q5351	8-729-255-12	TRANSISTOR 2SC2551-0		R5385	1-202-549-00	SOLID 100 20%	1/2W
Q5375	8-729-119-78	TRANSISTOR 2SC2785-HFE		R5386	1-202-884-11	SOLID 820K 20%	1/2W
Q5376	8-729-026-39	TRANSISTOR 2SA933AS-QT		R5387	1-202-884-11	SOLID 820K 20%	1/2W
< RESISTOR >				R5388	1-215-911-11	METAL OXIDE 100 5%	3W F
R5300	1-249-417-11	CARBON 1K 5%	1/4W	R5389	1-249-417-11	CARBON 1K 5%	1/4W F
R5301	1-249-413-11	CARBON 470 5%	1/4W	< VARIABLE RESISTOR >			
R5302	1-249-408-11	CARBON 180 5%	1/4W	RV5375	1-241-656-21	RES, ADJ, METAL FILM 110M	
R5303	1-249-417-11	CARBON 1K 5%	1/4W	RV5376	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M	
R5304	1-202-565-00	SOLID 470 20%	1/2W	*A-1640-328-A D Board, Complete (KV-28FC60/28FC60/Z)			
R5305	1-215-926-00	METAL OXIDE 33K 5%	3W F	*A-1640-323-A D Board, Complete (KV-32FC60/32FC60/Z)			
R5306	1-249-424-11	CARBON 3.9K 5%	1/4W	D Board Common Parts			
R5307	1-247-863-91	CARBON 22K 5%	1/4W	4-201-023-01	SPACER, INSULATING		
R5325	1-249-417-11	CARBON 1K 5%	1/4W	4-202-373-01	SPRING, IC		
R5326	1-249-413-11	CARBON 470 5%	1/4W	4-382-854-11	SCREW (M3X10), P, SW (+)		
R5327	1-249-408-11	CARBON 180 5%	1/4W	*4-931-401-01	HEAT SINK, V.OUT		
R5328	1-249-417-11	CARBON 1K 5%	1/4W	< CAPACITOR >			
R5329	1-202-565-00	SOLID 470 20%	1/2W	C6600	$\Delta$ 1-162-580-51	CERAMIC 0.01MF	400V
R5330	1-215-926-00	METAL OXIDE 33K 5%	3W F	C6603	1-126-933-11	ELECT 100MF 20%	16V
R5331	1-249-424-11	CARBON 3.9K 5%	1/4W	C6604	1-126-767-11	ELECT 1000MF 20%	16V
R5332	1-247-863-91	CARBON 22K 5%	1/4W	C6605	$\Delta$ 1-119-888-51	CERAMIC 2200PF 20%	250V
R5350	1-249-417-11	CARBON 1K 5%	1/4W	C6606	$\Delta$ 1-119-888-51	CERAMIC 2200PF 20%	250V
R5351	1-249-413-11	CARBON 470 5%	1/4W	C6607	$\Delta$ 1-136-518-12	FILM 0.33MF 20%	300V
R5352	1-249-416-11	CARBON 820 5%	1/4W	C6608	$\Delta$ 1-161-964-91	CERAMIC 0.0047MF	250V
R5353	1-249-421-11	CARBON 2.2K 5%	1/4W	C6609	$\Delta$ 1-161-964-91	CERAMIC 0.0047MF	250V
R5354	1-249-418-11	CARBON 1.2K 5%	1/4W	C6610	$\Delta$ 1-162-599-12	CERAMIC 0.0047MF	250V
R5355	1-249-408-11	CARBON 180 5%	1/4W	C6611	$\Delta$ 1-162-599-12	CERAMIC 0.0047MF	250V
R5356	1-249-417-11	CARBON 1K 5%	1/4W	C6612	1-161-744-00	CERAMIC 0.01MF	400V
R5357	1-202-565-00	SOLID 470 20%	1/2W	C6616	1-164-625-11	CERAMIC 680PF 10%	500V
R5358	1-215-926-00	METAL OXIDE 33K 5%	3W F	C6617	1-164-625-11	CERAMIC 680PF 10%	500V

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C6618	1-136-175-00	FILM	0.68MF 5% 50V	C6681	1-126-964-11	ELECT	10MF 20% 50V
C6619	1-137-194-91	FILM	0.47MF 5% 50V	C6682	1-107-679-91	ELECT	10MF 20% 450V
C6620	1-136-618-11	FILM	0.047MF 5% 1.25KV	C6700	1-102-129-00	CERAMIC	0.01MF 10% 50V
C6621	1-136-175-00	FILM	0.68MF 5% 50V	C6703	1-128-527-11	ELECT	330MF 20% 25V
C6622	1-164-625-11	CERAMIC	680PF 10% 500V	C6704	1-126-968-11	ELECT	100MF 20% 50V
C6623	1-137-194-91	FILM	0.47MF 5% 50V	C6705	1-128-527-11	ELECT	330MF 20% 25V
C6624	1-126-968-11	ELECT	100MF 20% 50V	C6706	1-106-228-00	MYLAR	0.22MF 10% 100V
C6626	1-164-625-11	CERAMIC	680PF 10% 500V	C6707	1-129-702-00	FILM	0.001MF 10% 400V
C6627	1-164-625-11	CERAMIC	680PF 10% 500V	C6708	1-106-220-00	MYLAR	0.1MF 10% 100V
C6628	1-126-936-11	ELECT	3300MF 20% 16V	C6709	1-102-129-00	CERAMIC	0.01MF 10% 50V
C6629	1-128-548-11	ELECT	4700MF 20% 25V	C6710	1-130-785-11	MYLAR	0.47MF 10% 100V
C6630	1-110-626-11	ELECT	330MF 20% 160V	C6727	1-102-228-00	CERAMIC	470PF 10% 500V
C6631	1-126-955-11	ELECT	4700MF 20% 35V	C6801	1-104-664-11	ELECT	47MF 20% 25V
C6632	1-126-955-11	ELECT	4700MF 20% 35V	C6802	1-126-960-11	ELECT	1MF 20% 50V
C6634	1-136-165-00	FILM	0.1MF 5% 50V	C6803	1-126-960-11	ELECT	1MF 20% 50V
C6635	1-104-664-11	ELECT	47MF 20% 25V	C6804	1-102-114-00	CERAMIC	470PF 10% 50V
C6636	1-102-129-00	CERAMIC	0.01MF 10% 50V	C6805	1-102-114-00	CERAMIC	470PF 10% 50V
C6637	1-102-129-00	CERAMIC	0.01MF 10% 50V	C6808	1-102-030-00	CERAMIC	330PF 10% 500V
C6638	1-137-368-11	FILM	0.0047MF 5% 50V	C6809	1-102-030-00	CERAMIC	330PF 10% 500V
C6639	1-102-228-00	CERAMIC	470PF 10% 500V	C6810	1-107-368-11	FILM	0.047MF 10% 200V
C6641	1-126-967-11	ELECT	47MF 20% 50V	C6811	1-107-368-11	FILM	0.047MF 10% 200V
C6642	1-126-964-11	ELECT	10MF 20% 50V	C6812	1-162-131-11	CERAMIC	220PF 10% 2KV
C6647	1-104-664-11	ELECT	47MF 20% 25V	C6813	1-162-134-11	CERAMIC	470PF 10% 2KV
C6649	1-126-965-11	ELECT	22MF 20% 50V	C6816	1-130-471-00	FILM	0.001MF 5% 50V
C6651	1-162-599-12	CERAMIC	0.0047MF 250V	C6817	1-125-893-11	FILM	680PF 3% 1.5KV
C6652	1-107-679-91	ELECT	10MF 20% 450V	C6818	1-125-893-11	FILM	680PF 3% 1.5KV
C6653	1-126-968-11	ELECT	100MF 20% 50V	C6819	1-125-893-11	FILM	680PF 3% 1.5KV
C6654	1-162-117-00	CERAMIC	100PF 10% 500V	C6820	1-125-893-11	FILM	680PF 3% 1.5KV
C6655	1-107-974-11	CERAMIC	47PF 5% 2KV	C6824	1-107-846-11	FILM	0.1MF 5% 250V
C6656	1-126-967-11	ELECT	47MF 20% 50V	C6827	1-107-846-11	FILM	0.1MF 5% 250V
C6657	1-126-941-11	ELECT	470MF 20% 25V	C6828	1-127-681-11	FILM MELF	10000PF 2% 100V
C6658	1-104-665-11	ELECT	100MF 20% 25V	C6829	1-127-680-11	FILM MELF	4700PF 2% 100V
C6659	1-104-665-11	ELECT	100MF 20% 25V	C6830	1-107-655-11	ELECT	47MF 20% 250V
C6661	1-117-753-11	ELECT(BLOCK)	470MF 20% 450V	C6831	1-102-228-00	CERAMIC	470PF 10% 500V
C6662	1-136-165-00	FILM	0.1MF 5% 50V	C6832	1-126-941-11	ELECT	470MF 20% 25V
C6664	1-136-153-00	FILM	0.01MF 5% 50V	C6833	1-126-941-11	ELECT	470MF 20% 25V
C6665	1-136-165-00	FILM	0.1MF 5% 50V	C6834	1-102-228-00	CERAMIC	470PF 10% 500V
C6666	1-136-165-00	FILM	0.1MF 5% 50V	C6835	1-102-228-00	CERAMIC	470PF 10% 500V
C6667	1-126-933-11	ELECT	100MF 20% 16V	C6836	1-123-024-21	ELECT	33MF 160V
C6668	1-126-933-11	ELECT	100MF 20% 16V	C6837	1-106-375-12	MYLAR	0.022MF 10% 250V
C6669	1-136-165-00	FILM	0.1MF 5% 50V	C6840	1-137-370-11	FILM	0.01MF 5% 50V
C6670	1-136-165-00	FILM	0.1MF 5% 50V	C6841	1-104-664-11	ELECT	47MF 20% 16V
C6671	1-104-664-11	ELECT	47MF 20% 16V	C6844	1-115-513-21	FILM	0.18MF 5% 250V
C6672	1-104-664-11	ELECT	47MF 20% 16V	C6851	1-162-131-11	CERAMIC	220PF 10% 2KV
C6677	1-136-165-00	FILM	0.1MF 5% 50V	C6852	1-162-129-00	CERAMIC	150PF 10% 2KV
C6679	1-130-495-00	FILM	0.1MF 5% 50V	C6853	1-137-536-11	FILM	0.0022MF 5% 630V
C6680	1-137-370-11	FILM	0.01MF 5% 50V	C6855	1-136-205-11	FILM	0.022MF 10% 400V

The components identified by shading and marked  $\Delta$  are critical for safety  
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D

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
C6856	1-102-030-00	CERAMIC 330PF	10% 500V	D6658	8-719-068-00	DIODE ERC04-06SE	
C6857	1-130-785-11	FILM 0.47MF	10% 100V	D6659	8-719-063-73	DIODE D1NL20U-TR	
C6861	1-130-471-00	FILM 0.001MF	5% 50V	D6676	8-719-991-33	DIODE 1SS133T-77	
C6862	1-130-471-00	FILM 0.001MF	5% 50V	D6677	8-719-921-40	DIODE MTZJ-4.7C	
				D6678	8-719-921-40	DIODE MTZJ-4.7C	
	< CONNECTOR >						
CN6100	1-785-802-11	CONNECTOR, 20 PIN		D6679	8-719-991-33	DIODE 1SS133T-77	
CN6101	1-785-802-11	CONNECTOR, 20 PIN		D6681	8-719-991-33	DIODE 1SS133T-77	
CN6102	1-785-802-11	CONNECTOR, 20 PIN		D6700	8-719-200-02	DIODE ERA15-02	
CN6500	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		D6701	8-719-110-41	DIODE RD15ESB2	
CN6600	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P		D6803	8-719-200-02	DIODE ERA15-02	
CN6611	*1-785-270-12	PIN, DY CONNECTOR (PC BOARD)		D6804	1-535-143-11	LEAD, JUMPER (10.0MM)	
CN6620 $\Delta$	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		D6805	8-719-302-43	DIODE EL1Z	
CN6622	1-695-915-11	TAB (CONTACT)		D6806	8-719-979-85	DIODE EGP20G	
CN6666 $\Delta$	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D6807	8-719-510-73	DIODE S3L20UF4	
CN6700 $\Delta$	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P		D6808	8-719-510-73	DIODE S3L20UF4	
	< DIODE >						
D6600	8-719-911-19	DIODE 1SS119-25		D6809	8-719-991-33	DIODE 1SS133T-77	
D6601	8-719-063-73	DIODE D1NL20U-TR		D6810	1-247-895-91	CARBON 470K 5% 1/4W	
D6602	8-719-109-89	DIODE RD5.6ESB2		D6811	8-719-110-41	DIODE RD15ESB2	
D6603	8-719-911-19	DIODE 1SS119-25		D6851	8-719-970-87	DIODE ERA38-06	
D6604	8-719-510-53	DIODE D4SB60L		D6852	8-719-970-87	DIODE ERA38-06	
					< FERRITE BEAD >		
D6605	8-719-991-33	DIODE 1SS133T-77		FB6602	1-410-396-41	FERRITE 0.45UH	
D6610	8-719-063-73	DIODE D1NL20U-TR		FB6603	1-410-396-41	FERRITE 0.45UH	
D6613	8-719-911-19	DIODE 1SS119-25			< IC >		
D6615	8-719-911-19	DIODE 1SS119-25		IC6600	1-810-051-11	POWER MODULE DM-48	
D6616	8-719-510-12	DIODE D10SC4M		IC6604	8-729-045-40	TRANSISTOR MX0842A-F	
D6617	8-719-500-71	DIODE D8LC40		IC6651	8-759-468-89	IC TOP209P	
D6618	8-719-047-31	DIODE RBA-402L		IC6652	8-759-394-35	IC BA12T	
D6619	8-719-510-12	DIODE D10SC4M		IC6653	8-759-544-13	IC KA78R09TU	
D6621	8-719-991-33	DIODE 1SS133T-77		IC6654	8-759-574-76	IC KA78R05-SYDTU	
D6622	8-719-991-33	DIODE 1SS133T-77		IC6667	8-759-908-15	IC TL431CLP	
D6623	8-719-911-19	DIODE 1SS119-25		IC6676	8-759-908-15	IC TL431CLP	
D6624	8-719-991-33	DIODE 1SS133T-77		IC6700	8-759-192-71	IC STV9379	
D6625	8-719-991-33	DIODE 1SS133T-77		IC6801	8-759-103-93	IC UPC393C	
D6626	8-719-991-33	DIODE 1SS133T-77			< COIL >		
D6627	8-719-982-27	DIODE MTZJ-33C		L6604	1-412-525-31	INDUCTOR 10UH	
D6628	8-719-109-97	DIODE RD6.8ESB2		L6605	1-412-523-41	INDUCTOR 6.8UH	
D6629	8-719-991-33	DIODE 1SS133T-77		L6606	1-412-525-31	INDUCTOR 10UH	
D6630	8-719-991-33	DIODE 1SS133T-77		L6651	1-414-183-41	INDUCTOR 10UH	
D6631	8-719-991-33	DIODE 1SS133T-77		L6700	1-412-524-11	INDUCTOR 8.2UH	
D6651	8-719-068-00	DIODE ERC04-06SE					
D6652	8-719-923-78	DIODE MTZJ-T-77-12		L6801	1-412-519-11	INDUCTOR 3.3UH	
D6653	8-719-063-73	DIODE D1NL20U-TR		L6802	1-412-519-11	INDUCTOR 3.3UH	
D6654	8-719-059-23	DIODE P6KE200AG23		L6803	1-412-533-21	INDUCTOR 47UH	
D6655	8-719-979-64	DIODE UF4005PKG23		L6805	1-408-947-00	INDUCTOR 2.2MMH	
D6656	8-719-063-73	DIODE D1NL20U-TR		L6806	1-410-397-21	FERRITE 1.1UH	

D

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REF.NO. PART.NO DESCRIPTION REMARK

L6807 1-410-397-21 FERRITE 1.1UH  
L6851 1-535-303-00 LEAD, JUMPER (5.0MM)

< FILTER >

LF6603 1-406-659-11 INDUCTOR 10UH  
LF6604 1-406-659-11 INDUCTOR 10UH  
LF6801 1-406-985-11 INDUCTOR 2.2MMH  
LF6851 1-406-674-11 INDUCTOR 3.3MMH

< IC LINK >

PS6601  $\Delta$  1-801-550-21 PROTECTOR, MODULE 2.5A MP250  
PS6602  $\Delta$  1-801-550-21 PROTECTOR, MODULE 2.5A MP250  
PS6603  $\Delta$  1-801-549-21 PROTECTOR, MODULE 2.5A MP250  
PS6604  $\Delta$  1-801-550-21 PROTECTOR, MODULE 2.5A MP250

< TRANSISTOR >

Q6600 8-729-046-47 TRANSISTOR KSC2500-BTA  
Q6602 8-729-026-39 TRANSISTOR 2SA933AS-QT  
Q6603 8-729-119-78 TRANSISTOR 2SC2785-HFE  
Q6605 8-729-046-47 TRANSISTOR KSC2500-BTA  
Q6606 8-729-029-56 TRANSISTOR DTA144ESA

Q6607 8-729-119-78 TRANSISTOR 2SC2785-HFE  
Q6608 8-729-029-66 TRANSISTOR DTC114ESA  
Q6611 8-729-029-66 TRANSISTOR DTC114ESA  
Q6651 8-729-026-39 TRANSISTOR 2SA933AS-QT  
Q6652 8-729-029-86 TRANSISTOR DTC124ESA

Q6667 8-729-026-39 TRANSISTOR 2SA933AS-QT  
Q6676 8-729-119-78 TRANSISTOR 2SC2785-HFE  
Q6677 8-729-119-78 TRANSISTOR 2SC2785-HFE  
Q6678 8-729-119-78 TRANSISTOR 2SC2785-HFE  
Q6679 8-729-026-39 TRANSISTOR 2SA933AS-QT

Q6680 8-729-029-66 TRANSISTOR DTC114ESA  
Q6681 8-729-029-66 TRANSISTOR DTC114ESA  
Q6700 8-729-039-68 TRANSISTOR IRF620  
Q6801 8-729-119-80 TRANSISTOR 2SC2688-LK  
Q6802 8-729-119-80 TRANSISTOR 2SC2688-LK

Q6803 8-729-046-18 TRANSISTOR 2SC5480-01  
Q6804 8-729-046-18 TRANSISTOR 2SC5480-01  
Q6805 8-729-038-83 TRANSISTOR 2SK2251-01-F19  
Q6806 8-729-047-59 TRANSISTOR STP5NB40FP  
Q6807 8-729-030-02 TRANSISTOR DTC144ESA

Q6851 8-729-043-95 TRANSISTOR 2SC3840(3)

< RESISTOR >

R6601  $\Delta$  1-202-968-11 CEMENTED 1.2 5% 10W  
R6602 1-247-863-91 CARBON 22K 5% 1/4W  
R6603 1-249-430-11 CARBON 12K 5% 1/4W

REF.NO. PART.NO DESCRIPTION REMARK

R6604 1-249-421-11 CARBON 2.2K 5% 1/4W  
R6605 1-249-417-11 CARBON 1K 5% 1/4W F  
R6606  $\Delta$  1-202-968-11 CEMENTED 1.2 5% 10W  
R6608  $\Delta$  1-220-797-11 CEMENTED 0.47 5% 10W F  
R6611 1-260-125-11 CARBON 150K 5% 1/2W

R6612 1-260-125-11 CARBON 150K 5% 1/2W  
R6613 1-216-369-00 METAL OXIDE 1 5% 2W F  
R6614 1-260-125-11 CARBON 150K 5% 1/2W  
R6615 1-260-125-11 CARBON 150K 5% 1/2W  
R6616 1-216-369-00 METAL OXIDE 1 5% 2W F

R6619 1-249-425-11 CARBON 4.7K 5% 1/4W  
R6620 1-249-443-11 CARBON 0.47 5% 1/4W F  
R6624 1-249-425-11 CARBON 4.7K 5% 1/4W  
R6625 1-249-429-11 CARBON 10K 5% 1/4W  
R6626 1-247-807-31 CARBON 100 5% 1/4W

R6627 1-249-429-11 CARBON 10K 5% 1/4W  
R6628 1-260-129-11 CARBON 330K 5% 1/2W  
R6629 1-260-129-11 CARBON 330K 5% 1/2W  
R6630 1-249-417-11 CARBON 1K 5% 1/4W  
R6631 1-249-425-11 CARBON 4.7K 5% 1/4W

R6632 1-207-905-00 WIREWOUND 0.27 10% 2W F  
R6633 1-249-429-11 CARBON 10K 5% 1/4W  
R6635 1-535-303-00 LEAD, JUMPER (5.0MM)  
R6637 1-249-421-11 CARBON 2.2K 5% 1/4W  
R6638 1-247-895-91 CARBON 470K 5% 1/4W

R6639 1-249-416-11 CARBON 820 5% 1/4W  
R6640 1-249-417-11 CARBON 1K 5% 1/4W  
R6641 1-260-127-11 CARBON 220K 5% 1/2W  
R6642 1-249-389-11 CARBON 4.7 5% 1/4W F  
R6643 1-249-417-11 CARBON 1K 5% 1/4W F

R6644 1-249-429-11 CARBON 10K 5% 1/4W  
R6645 1-260-131-11 CARBON 470K 5% 1/2W  
R6646 1-249-429-11 CARBON 10K 5% 1/4W  
R6647 1-249-410-11 CARBON 270 5% 1/4W  
R6648 1-247-863-91 CARBON 22K 5% 1/4W

R6649 1-215-926-00 METAL OXIDE 33K 5% 3W F  
R6651 1-247-791-91 CARBON 22 5% 1/4W  
R6652 1-249-389-11 CARBON 4.7 5% 1/4W F  
R6653 1-249-421-11 CARBON 2.2K 5% 1/4W  
R6655 1-249-429-11 CARBON 10K 5% 1/4W

R6656  $\Delta$  1-218-265-11 METAL 8.2M 5% 1W  
R6657 1-215-421-00 METAL 1K 1% 1/4W  
R6666 1-202-933-61 FUSIBLE 0.1 10% 1/2W F  
R6667 1-215-441-00 METAL 6.8K 1% 1/4W  
R6668 1-249-429-11 CARBON 10K 5% 1/4W

R6669 1-249-413-11 CARBON 470 5% 1/4W  
R6676 1-249-417-11 CARBON 1K 5% 1/4W

The components identified by shading and marked  $\Delta$  are critical for safety  
Replace only with the part number specified.

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REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
R6677	1-249-417-11	CARBON	1K 5% 1/4W	R6831	1-260-124-11	CARBON	120K 5% 1/2W
R6678	1-249-417-11	CARBON	1K 5% 1/4W	R6832	1-216-434-11	METAL OXIDE	1.8K 5% 1W F
R6679	1-215-479-00	METAL	270K 1% 1/4W	R6833	1-202-972-61	FUSIBLE	1 5% 1/4W F
R6681	1-215-467-00	METAL	82K 1% 1/4W	R6834	1-535-303-00	LEAD, JUMPER (5.0MM)	
R6682	1-215-447-00	METAL	12K 1% 1/4W	R6835	1-260-288-11	CARBON	0.47 5% 1/2W
R6683	1-215-429-00	METAL	2.2K 1% 1/4W	R6837	1-215-919-11	METAL OXIDE	2.2K 5% 3W F
R6684	1-247-807-31	CARBON	100 5% 1/4W	R6838	1-214-905-11	METAL	47K 1% 1/2W
R6685	1-249-417-11	CARBON	1K 5% 1/4W	R6839	1-215-919-11	METAL OXIDE	2.2K 5% 3W F
R6686	1-215-449-00	METAL	15K 1% 1/4W	R6840	1-247-843-11	CARBON	3.3K 5% 1/4W
R6687	1-249-431-11	CARBON	15K 5% 1/4W	R6842	1-260-123-11	CARBON	100K 5% 1/2W
R6688	1-249-417-11	CARBON	1K 5% 1/4W	R6843	1-249-429-11	CARBON	10K 5% 1/4W
R6689	1-247-843-11	CARBON	3.3K 5% 1/4W	R6844	1-249-441-11	CARBON	100K 5% 1/4W
R6690	1-249-429-11	CARBON	10K 5% 1/4W	R6845	1-247-863-91	CARBON	22K 5% 1/4W
R6691	1-215-446-00	METAL	11K 1% 1/4W	R6851	1-260-123-11	CARBON	100K 5% 1/2W
R6692	1-215-445-00	METAL	10K 1% 1/4W	R6852	1-260-123-11	CARBON	100K 5% 1/2W
R6700	1-215-441-00	METAL	6.8K 1% 1/4W	R6853	1-260-123-11	CARBON	100K 5% 1/2W
R6701	1-215-437-00	METAL	4.7K 1% 1/4W	R6854	1-249-417-11	CARBON	1K 5% 1/4W
R6702	1-215-441-00	METAL	6.8K 1% 1/4W	R6880	1-215-436-00	METAL	4.3K 1% 1/4W
R6703	1-215-437-00	METAL	4.7K 1% 1/4W	R6885	1-215-493-00	METAL	1M 1% 1/4W
R6704	1-249-383-11	CARBON	1.5 5% 1/4W F	R6886	1-215-477-00	METAL	220K 1% 1/4W
R6705	1-247-791-91	CARBON	22 5% 1/4W	R6887	1-215-461-00	METAL	47K 1% 1/4W
R6706	1-249-389-11	CARBON	4.7 5% 1/4W F	R6888	1-249-441-11	CARBON	100K 5% 1/4W
R6707	1-215-888-00	METAL OXIDE	220 5% 2W F	R6891	1-535-303-00	LEAD, JUMPER (5.0MM)	
R6708	1-214-798-21	METAL	1.8 1% 1/2W	R6892	1-535-303-00	LEAD, JUMPER (5.0MM)	
R6709	1-214-798-21	METAL	1.8 1% 1/2W	R6895	1-249-443-11	CARBON	0.47 5% 1/4W F
R6710	1-247-843-11	CARBON	3.3K 5% 1/4W	R6896	1-249-443-11	CARBON	0.47 5% 1/4W F
R6711	1-249-418-11	CARBON	1.2K 5% 1/4W	R6898	1-215-493-00	METAL	1M 1% 1/4W
R6801	1-215-440-00	METAL	6.2K 1% 1/4W	R6899	1-215-493-00	METAL	1M 1% 1/4W
R6802	1-214-915-00	METAL	120K 1% 1/2W	< RELAY >			
R6803	1-249-421-11	CARBON	2.2K 5% 1/4W	RY6601 $\Delta$	1-755-266-11	RELAY, AC POWER	
R6804	1-249-408-11	CARBON	180 5% 1/4W	RY6602 $\Delta$	1-755-167-11	RELAY, AC POWER	
R6805	1-249-408-11	CARBON	180 5% 1/4W	< TRANSFORMER >			
R6806	1-249-411-11	CARBON	330 5% 1/4W	T6600	1-431-616-11	TRANSFORMER, CONVERTER	
R6807	1-249-411-11	CARBON	330 5% 1/4W	T6601 $\Delta$	1-433-516-11	TRANSFORMER, CONVERTER (PIT)	
R6808	1-260-340-11	CARBON	10K 5% 1/2W	T6651 $\Delta$	1-431-732-11	TRANSFORMER, CONVERTER (SRT)	
R6809	1-260-340-11	CARBON	10K 5% 1/2W	T6801	1-433-489-31	TRANSFORMER, FERRITE (HDT)	
R6811	1-216-461-00	METAL OXIDE	5.6K 5% 2W F	T6802	1-433-489-31	TRANSFORMER, FERRITE (HDT)	
R6812	1-215-895-11	METAL OXIDE	3.3K 5% 2W F	T6804 $\Delta$	1-453-319-11	TRANSFORMER, ASSY FLYBACK (NX-4512/U214)	
R6813	1-215-920-11	METAL OXIDE	3.3K 5% 3W F	T6852	1-433-487-11	TRANSFORMER, FERRITE (DFT)	
R6814	1-215-880-00	METAL OXIDE	10 5% 2W F	< THERMISTOR >			
R6815	1-215-880-00	METAL OXIDE	10 5% 2W F	TH6600 $\Delta$	1-809-827-11	THERMISTOR, POSITIVE	
R6816	1-216-361-00	METAL OXIDE	0.22 5% 2W F	TH6700	1-800-193-00	THERMISTOR	
R6817	1-216-361-00	METAL OXIDE	0.22 5% 2W F				
R6818	1-249-405-11	CARBON	100 5% 1/4W F				
R6819	1-247-807-31	CARBON	100 5% 1/4W				
R6820	1-216-391-11	METAL OXIDE	1.5 5% 3W F				
R6821	1-216-391-11	METAL OXIDE	1.5 5% 3W F				



REF.NO. PART.NO DESCRIPTION REMARK

**D Board Variant Parts KV-28FC60/28FC60/Z**

< CAPACITOR >

C6814	1-117-641-11	FILM	7500PF	3%	1.2KV
C6815	1-117-836-11	FILM	6800PF	3%	1.5KV
C6825	1-115-514-11	FILM	0.22MF	5%	250V
C6826	1-115-520-11	FILM	0.68MF	5%	250V

< RESISTOR >

R6810	1-215-920-11	METAL OXIDE	3.3K	5%	3W	F
R6836	1-249-432-21	CARBON	18K	5%	1/4W	
R6856	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R6857	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R6858	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R6859	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R6897	1-215-485-00	METAL	470K	1%	1/4W	

**D Board Variant Parts KV-32FC60/32FC60/Z**

< CAPACITOR >

C6814	1-117-640-11	FILM	6800PF	3%	1.2KV
C6815	1-117-835-11	FILM	6200PF	3%	1.5KV
C6825	1-117-662-11	FILM	0.18MF	5%	250V
C6826	1-115-579-11	FILM	0.56MF	5%	250V

< RESISTOR >

R6810	1-216-484-00	METAL OXIDE	3.9K	5%	3W	
R6836	1-249-431-11	CARBON	15K	5%	1/4W	
R6856	1-215-922-11	METAL OXIDE	6.8K	5%	3W	
R6857	1-215-922-11	METAL OXIDE	6.8K	5%	3W	
R6858	1-215-922-11	METAL OXIDE	6.8K	5%	3W	
R6859	1-215-922-11	METAL OXIDE	6.8K	5%	3W	
R6897	1-215-489-11	METAL	680K	1%	1/4W	

**\*A-1640-348-A E Board, Complete  
(KV-28FC60/28FC60/Z)**

**\*A-1640-347-A E Board, Complete  
(KV-32FC60/32FC60/Z)**

**E Board Common Parts**

< CAPACITOR >

C4316	1-104-664-11	ELECT	47MF	20%	25V
C4317	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4318	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4319	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4320	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4321	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

REF.NO. PART.NO DESCRIPTION REMARK

C4322	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4324	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4325	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C4329	1-126-963-11	ELECT	4.7MF	20%	50V
C4330	1-137-581-11	FILM	0.1MF	5%	100V

C4331	1-126-959-11	ELECT	0.47MF	20%	50V
C4332	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4333	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4334	1-126-967-11	ELECT	47MF	20%	50V
C4336	1-126-967-11	ELECT	47MF	20%	50V

C4338	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4340	1-126-967-11	ELECT	47MF	20%	50V
C4342	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C4343	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4344	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V

C4345	1-126-967-11	ELECT	47MF	20%	50V
C4346	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4347	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4348	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4349	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

C4350	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4351	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C4352	1-126-967-11	ELECT	47MF	20%	50V
C4353	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C4354	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V

C4355	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4356	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4357	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4358	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4359	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V

C4360	1-126-963-11	ELECT	4.7MF	20%	50V
C4362	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4363	1-126-967-11	ELECT	47MF	20%	50V
C4364	1-126-967-11	ELECT	47MF	20%	50V
C4366	1-163-059-91	CERAMIC CHIP	0.01MF	10%	50V

C4369	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4370	1-126-967-11	ELECT	47MF	20%	50V
C4371	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4377	1-126-960-11	ELECT	1MF	20%	50V
C4379	1-163-243-11	CERAMIC CHIP	47PF	5%	50V

C4381	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
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< CONNECTOR >

CN4101	1-695-301-11	CONNECTOR, BOARD TO BOARD	40P
CN4500	*1-564-511-11	PLUG, CONNECTOR	8P
CN4502	*1-568-878-51	PIN, CONNECTOR	3P

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
< DIODE >				R4333	1-216-073-00	RES,CHIP 10K 5%	1/10W
D4304	8-719-923-60	DIODE MTZJ-T-77-9.1A		R4334	1-216-025-91	RES,CHIP 100 5%	1/10W
D4305	8-719-923-60	DIODE MTZJ-T-77-9.1A		R4335	1-216-025-91	RES,CHIP 100 5%	1/10W
D4311	8-719-914-43	DIODE DAN202K		R4336	1-216-025-91	RES,CHIP 100 5%	1/10W
D4312	8-719-914-43	DIODE DAN202K		R4337	1-216-025-91	RES,CHIP 100 5%	1/10W
D4313	8-719-401-63	DIODE MA3062M-TX		R4339	1-216-049-91	RES,CHIP 1K 5%	1/10W
< FERRITE BEAD >				R4341	1-216-295-91	SHORT 0	
FB4387	1-414-234-22	INDUCTOR CHIP 0UH		R4343	1-216-025-91	RES,CHIP 100 5%	1/10W
FB4388	1-414-234-22	INDUCTOR CHIP 0UH		R4344	1-216-025-91	RES,CHIP 100 5%	1/10W
FB4389	1-414-234-22	INDUCTOR CHIP 0UH		R4345	1-216-677-11	METAL CHIP 12K 0.50%	1/10W
< IC >				R4346	1-216-683-11	METAL CHIP 22K 0.50%	1/10W
IC4301	8-752-090-88	IC CXA2100AQ-TL		R4347	1-216-025-91	RES,CHIP 100 5%	1/10W
< COIL >				R4348	1-216-025-91	RES,CHIP 100 5%	1/10W
L4301	1-414-183-41	INDUCTOR 10UH		R4350	1-216-025-91	RES,CHIP 100 5%	1/10W
L4302	1-414-183-41	INDUCTOR 10UH		R4354	1-216-675-91	METAL CHIP 10K 0.50%	1/10W
L4303	1-414-183-41	INDUCTOR 10UH		R4358	1-216-071-00	RES,CHIP 8.2K 5%	1/10W
L4304	1-414-183-41	INDUCTOR 10UH		R4359	1-216-041-00	RES,CHIP 470 5%	1/10W
L4305	1-414-183-41	INDUCTOR 10UH		R4360	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
L4306	1-414-183-41	INDUCTOR 10UH		R4361	1-216-133-00	RES,CHIP 3.3M 5%	1/10W
L4308	1-414-186-31	INDUCTOR 33UH		R4363	1-216-025-91	RES,CHIP 100 5%	1/10W
L4309	1-414-186-31	INDUCTOR 33UH		R4365	1-216-025-91	RES,CHIP 100 5%	1/10W
< TRANSISTOR >				R4366	1-216-025-91	RES,CHIP 100 5%	1/10W
Q4304	8-729-026-49	TRANSISTOR 2SA1037K-T-146-R		R4367	1-216-025-91	RES,CHIP 100 5%	1/10W
Q4307	8-729-026-49	TRANSISTOR 2SA1037K-T-146-R		R4370	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q4308	8-729-026-49	TRANSISTOR 2SA1037K-T-146-R		R4371	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
Q4309	8-729-026-49	TRANSISTOR 2SA1037K-T-146-R		R4372	1-216-049-91	RES,CHIP 1K 5%	1/10W
Q4310	8-729-026-49	TRANSISTOR 2SA1037K-T-146-R		R4373	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q4315	1-801-806-11	TRANSISTOR DTC144EKA-T146		R4374	1-216-049-91	RES,CHIP 1K 5%	1/10W
Q4316	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R4375	1-216-049-91	RES,CHIP 1K 5%	1/10W
Q4317	8-729-900-53	TRANSISTOR DTC114EK		R4376	1-216-049-91	RES,CHIP 1K 5%	1/10W
< RESISTOR >				R4377	1-216-049-91	RES,CHIP 1K 5%	1/10W
R4301	1-216-025-91	RES,CHIP 100 5%	1/10W	R4378	1-216-101-00	RES,CHIP 150K 5%	1/10W
R4302	1-216-025-91	RES,CHIP 100 5%	1/10W	R4379	1-216-091-00	RES,CHIP 56K 5%	1/10W
R4303	1-216-025-91	RES,CHIP 100 5%	1/10W	R4380	1-216-073-00	RES,CHIP 10K 5%	1/10W
R4304	1-216-025-91	RES,CHIP 100 5%	1/10W	R4382	1-216-073-00	RES,CHIP 10K 5%	1/10W
R4305	1-216-025-91	RES,CHIP 100 5%	1/10W	R4383	1-216-079-00	RES,CHIP 18K 5%	1/10W
R4306	1-216-025-91	RES,CHIP 100 5%	1/10W	R4384	1-216-025-91	RES,CHIP 100 5%	1/10W
R4313	1-216-065-91	RES,CHIP 4.7K 5%	1/10W	R4387	1-216-031-00	RES,CHIP 180 5%	1/10W
R4314	1-216-057-00	RES,CHIP 2.2K 5%	1/10W	R4388	1-216-031-00	RES,CHIP 180 5%	1/10W
R4331	1-216-073-00	RES,CHIP 10K 5%	1/10W	R4389	1-216-031-00	RES,CHIP 180 5%	1/10W
R4332	1-216-073-00	RES,CHIP 10K 5%	1/10W	R4395	1-216-295-91	SHORT 0	
				R4396	1-216-295-91	SHORT 0	
				R4398	1-216-025-91	RES,CHIP 100 5%	1/10W
				R4401	1-216-105-91	RES,CHIP 220K 5%	1/10W
				R4504	1-216-295-91	SHORT 0	
				R4505	1-216-295-91	SHORT 0	
				R4506	1-216-295-91	SHORT 0	

**E****D1**

REF.NO.	PART.NO	DESCRIPTION	REMARK
R4518	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4519	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4520	1-216-295-91	SHORT 0	
R4521	1-216-295-91	SHORT 0	
R4522	1-216-295-91	SHORT 0	
R4523	1-216-295-91	SHORT 0	
	< CRYSTAL >		
X4300	1-767-127-11	VIBRATOR, CERAMIC	

#### E Board Variant Parts KV-28FC60/28FC60/Z

< CAPACITOR >

C4367	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
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#### E Board Variant Parts KV-32FC60/32FC60/Z

< CAPACITOR >

C4367	1-104-760-11	CERAMIC CHIP 0.047MF	10% 50V
C4380	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V

< TRANSISTOR >

Q4318	8-729-026-49	TRANSISTOR 2SA1037AK-T-146-R	
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< RESISTOR >

R4403	1-216-073-00	RES, CHIP 10K	5% 1/10W
R4404	1-216-073-00	RES, CHIP 10K	5% 1/10W
R4405	1-216-689-11	RES, CHIP 39K	5% 1/10W
R4406	1-216-105-91	RES, CHIP 220K	5% 1/10W
R4407	1-216-091-00	RES, CHIP 56K	5% 1/10W

**\*A-1640-369-A D1 Board, Complete  
(KV-28FC60/28FC60/Z)**  
**\*A-1640-366-A D1 Board, Complete  
(KV-32FC60/32FC60/Z)**

#### D1 Board Common Parts

4-382-854-11 SCREW (M3X10), P, SW (+)

< CAPACITOR >

C6100	1-136-165-00	FILM 0.1MF	5% 50V
C6101	1-136-165-00	FILM 0.1MF	5% 50V
C6102	1-136-165-00	FILM 0.1MF	5% 50V
C6103	1-163-205-00	CERAMIC CHIP 0.001MF	5% 50V
C6104	1-163-205-00	CERAMIC CHIP 0.001MF	5% 50V
C6105	1-126-967-11	ELECT 47MF	20% 50V
C6106	1-163-133-00	CERAMIC CHIP 470PF	5% 50V

REF.NO.	PART.NO	DESCRIPTION	REMARK
C6108	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C6109	1-126-967-11	ELECT 47MF	20% 50V
C6110	1-126-967-11	ELECT 47MF	20% 50V
C6112	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C6113	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C6114	1-126-964-11	ELECT 10MF	20% 50V
C6115	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
C6116	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C6117	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C6119	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C6120	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C6121	1-126-964-11	ELECT 10MF	20% 50V
C6122	1-126-967-11	ELECT 47MF	20% 50V
C6125	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C6126	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C6127	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C6128	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C6129	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C6131	1-126-964-11	ELECT 10MF	20% 50V
C6132	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C6199	1-163-229-11	CERAMIC CHIP 12PF	5% 50V
C6207	1-126-967-11	ELECT 47MF	20% 50V
C6208	1-126-967-11	ELECT 47MF	20% 50V
C6209	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C6210	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C6250	1-104-664-11	ELECT 47MF	20% 16V
C6251	1-216-295-91	SHORT 0	
C6253	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C6254	1-136-177-00	FILM 1MF	5% 50V
C6255	1-136-177-00	FILM 1MF	5% 50V
C6256	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C6257	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C6258	1-163-127-00	CERAMIC CHIP 270PF	5% 50V
C6259	1-110-501-11	CERAMIC CHIP 0.33MF	10% 16V
C6260	1-104-664-11	ELECT 47MF	20% 16V
C6261	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C6262	1-136-165-00	FILM 0.1MF	5% 50V
C6263	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C6264	1-126-964-11	ELECT 10MF	20% 50V
C6306	1-126-964-11	ELECT 10MF	20% 50V
C6307	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C6350	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C6351	1-126-967-11	ELECT 47MF	20% 50V
C6353	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C6354	1-136-159-00	FILM 0.033MF	5% 50V
C6355	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C6356	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V



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REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
Q6105	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6109	1-216-683-11	METAL CHIP 22K 0.50%	1/10W
Q6106	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6110	1-216-683-11	METAL CHIP 22K 0.50%	1/10W
Q6107	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6111	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
Q6108	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R6112	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
Q6110	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R					
				R6113	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q6112	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6114	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q6113	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6115	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q6118	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6116	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q6119	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R6117	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q6120	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R					
				R6118	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q6122	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R6119	1-216-073-00	RES,CHIP 10K 5%	1/10W
Q6123	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R6120	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
Q6125	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6121	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
Q6126	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R6122	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
Q6127	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R					
				R6123	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q6128	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6124	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q6129	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R6125	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
Q6201	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6126	1-216-037-00	RES,CHIP 330 5%	1/10W
Q6202	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6128	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
Q6250	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
				R6129	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
Q6251	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6131	1-216-037-00	RES,CHIP 330 5%	1/10W
Q6252	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R6132	1-216-037-00	RES,CHIP 330 5%	1/10W
Q6253	8-729-045-04	TRANSISTOR 2SC5511		R6133	1-216-037-00	RES,CHIP 330 5%	1/10W
Q6254	8-729-045-05	TRANSISTOR 2SA005		R6135	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
Q6350	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6136	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
Q6351	8-729-119-78	TRANSISTOR 2SC2785-HFE		R6137	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
Q6352	8-729-140-97	TRANSISTOR 2SB734-34		R6138	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
Q6353	8-729-140-97	TRANSISTOR 2SB734-34		R6139	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
Q6354	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6140	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
Q6356	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6143	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
Q6358	8-729-038-83	TRANSISTOR 2SK2251-01-F19		R6146	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
Q6401	1-801-806-11	TRANSISTOR DTC144EKA		R6148	1-216-295-91	SHORT 0	
Q6402	1-801-806-11	TRANSISTOR DTC144EKA		R6149	1-216-025-91	RES,CHIP 100 5%	1/10W
Q6403	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6155	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
Q6404	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R6160	1-216-295-91	SHORT 0	
Q6405	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R6162	1-216-049-91	RES,CHIP 1K 5%	1/10W
Q6455	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6165	1-216-699-91	METAL CHIP 100K 0.50%	1/10W
Q6465	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R6168	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
				R6169	1-216-699-91	METAL CHIP 100K 0.50%	1/10W
< RESISTOR >							
R6100	1-216-033-00	RES,CHIP 220 5%	1/10W	R6170	1-216-037-00	RES,CHIP 330 5%	1/10W
R6101	1-216-033-00	RES,CHIP 220 5%	1/10W	R6171	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
R6102	1-216-057-00	RES,CHIP 2.2K 5%	1/10W	R6177	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
R6103	1-216-057-00	RES,CHIP 2.2K 5%	1/10W	R6180	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
R6104	1-216-057-00	RES,CHIP 2.2K 5%	1/10W	R6182	1-216-089-91	RES,CHIP 47K 5%	1/10W
R6105	1-216-049-91	RES,CHIP 1K 5%	1/10W	R6183	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
R6106	1-216-057-00	RES,CHIP 2.2K 5%	1/10W	R6188	1-216-065-91	RES,CHIP 4.7K 5%	1/10W

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
R6190	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R6356	1-216-675-91	METAL CHIP	10K 0.50% 1/10W
R6191	1-215-925-11	METAL OXIDE	22K 5% 3W F	R6357	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R6192	1-216-683-11	METAL CHIP	22K 0.50% 1/10W	R6358	1-216-047-91	RES,CHIP	820 5% 1/10W
R6194	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R6359	1-216-097-91	RES,CHIP	100K 5% 1/10W
R6195	1-216-683-11	METAL CHIP	22K 0.50% 1/10W	R6360	1-216-073-00	RES,CHIP	10K 5% 1/10W
R6196	1-249-377-11	CARBON	0.47 5% 1/4W F	R6361	1-216-097-91	RES,CHIP	100K 5% 1/10W
R6199	1-216-081-00	RES,CHIP	22K 5% 1/10W	R6362	1-216-687-11	METAL CHIP	33K 0.50% 1/10W
R6205	1-216-025-91	RES,CHIP	100 5% 1/10W	R6363	1-216-675-91	METAL CHIP	10K 0.50% 1/10W
R6208	1-216-089-91	RES,CHIP	47K 5% 1/10W	R6364	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R6210	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R6365	1-216-033-00	RES,CHIP	220 5% 1/10W
R6211	1-216-073-00	RES,CHIP	10K 5% 1/10W	R6366	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R6212	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R6367	1-216-679-11	METAL CHIP	15K 0.50% 1/10W
R6215	1-216-089-91	RES,CHIP	47K 5% 1/10W	R6368	1-218-760-11	METAL CHIP	220K 0.50% 1/10W
R6216	1-216-089-91	RES,CHIP	47K 5% 1/10W	R6369	1-218-762-11	METAL CHIP	270K 0.50% 1/10W
R6217	1-216-073-00	RES,CHIP	10K 5% 1/10W	R6371	1-216-474-11	METAL OXIDE	82 5% 3W F
R6218	1-216-295-91	SHORT	0	R6372	1-216-033-00	RES,CHIP	220 5% 1/10W
R6254	1-216-049-91	RES,CHIP	1K 5% 1/10W	R6373	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R6255	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R6374	1-216-689-11	METAL CHIP	39K 0.50% 1/10W
R6256	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R6375	1-216-041-00	RES,CHIP	470 5% 1/10W
R6257	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R6377	1-216-689-11	METAL CHIP	39K 0.50% 1/10W
R6258	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R6378	1-216-675-91	METAL CHIP	10K 0.50% 1/10W
R6259	1-216-097-91	RES,CHIP	100K 5% 1/10W	R6379	1-216-295-91	SHORT	0
R6260	1-216-049-91	RES,CHIP	1K 5% 1/10W	R6380	1-218-754-11	METAL CHIP	120K 0.50% 1/10W
R6261	1-216-097-91	RES,CHIP	100K 5% 1/10W	R6381	1-216-045-00	RES,CHIP	680 5% 1/10W
R6262	1-260-321-71	CARBON	270 5% 1/2W	R6382	1-218-754-11	METAL CHIP	120K 0.50% 1/10W
R6263	1-216-025-91	RES,CHIP	100 5% 1/10W	R6383	1-216-687-11	METAL CHIP	33K 0.50% 1/10W
R6264	1-216-025-91	RES,CHIP	100 5% 1/10W	R6384	1-216-043-91	RES,CHIP	560 5% 1/10W
R6267	1-216-049-91	RES,CHIP	1K 5% 1/10W	R6385	1-216-295-91	SHORT	0
R6269	1-216-667-11	METAL CHIP	4.7K 0.50% 1/10W	R6386	1-216-699-91	METAL CHIP	100K 0.50% 1/10W
R6270	1-216-667-11	METAL CHIP	4.7K 0.50% 1/10W	R6387	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R6271	1-216-683-11	METAL CHIP	22K 0.50% 1/10W	R6391	1-249-417-11	CARBON	1K 5% 1/4W
R6278	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R6394	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R6279	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R6395	1-216-081-00	RES,CHIP	22K 5% 1/10W
R6280	1-212-849-00	FUSIBLE	4.7 5% 1/4W F	R6397	1-216-675-91	METAL CHIP	10K 0.50% 1/10W
R6281	1-212-849-00	FUSIBLE	4.7 5% 1/4W F	R6398	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R6282	1-215-886-11	METAL OXIDE	100 5% 2W F	R6399	1-218-756-11	METAL CHIP	150K 0.50% 1/10W
R6283	1-216-393-00	METAL OXIDE	2.2 5% 3W F	R6400	1-216-675-91	METAL CHIP	10K 0.50% 1/10W
R6285	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R6401	1-216-295-91	SHORT	0
R6313	1-216-295-91	SHORT	0	R6402	1-216-295-91	SHORT	0
R6322	1-216-049-91	RES,CHIP	1K 5% 1/10W	R6403	1-216-661-11	METAL CHIP	2.7K 0.50% 1/10W
R6323	1-216-049-91	RES,CHIP	1K 5% 1/10W	R6404	1-216-683-11	METAL CHIP	22K 0.50% 1/10W
R6324	1-216-025-91	RES,CHIP	100 5% 1/10W	R6405	1-216-683-11	METAL CHIP	22K 0.50% 1/10W
R6325	1-216-025-91	RES,CHIP	100 5% 1/10W	R6409	1-216-025-91	RES,CHIP	100 5% 1/10W
R6350	1-216-089-91	RES,CHIP	47K 5% 1/10W	R6410	1-216-073-00	RES,CHIP	10K 5% 1/10W
R6351	1-218-762-11	METAL CHIP	270K 0.50% 1/10W	R6411	1-216-073-00	RES,CHIP	10K 5% 1/10W
R6353	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W	R6412	1-216-073-00	RES,CHIP	10K 5% 1/10W
R6355	1-218-774-11	METAL CHIP	820K 0.50% 1/10W	R6413	1-216-679-11	METAL CHIP	15K 0.50% 1/10W

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REF.NO.	PART.NO	DESCRIPTION	REMARK
R6414	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6415	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6416	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6418	1-216-091-00	RES,CHIP 56K 5% 1/10W	
R6419	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6420	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6421	1-216-637-11	METAL CHIP 270 0.50% 1/10W	
R6422	1-216-639-11	METAL CHIP 330 0.50% 1/10W	
R6423	1-216-657-11	METAL CHIP 1.8K 0.50% 1/10W	
R6426	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R6427	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R6429	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6430	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6432	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6433	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6437	1-249-422-11	CARBON 2.7K 5% 1/4W	
R6438	1-249-421-11	CARBON 2.2K 5% 1/4W	
R6439	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6440	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6441	1-216-675-91	METAL CHIP 10K 0.50% 1/10W	
R6442	1-216-039-00	RES,CHIP 390 5% 1/10W	
R6455	1-216-295-91	SHORT 0	
R6456	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R6457	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R6458	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6459	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6460	1-249-393-11	CARBON 10 5% 1/4W	
R6461	1-249-411-11	CARBON 330 5% 1/4W	
R6462	1-249-406-11	CARBON 120 5% 1/4W	
R6463	1-216-095-00	RES,CHIP 82K 5% 1/10W	
R6464	1-216-079-00	RES,CHIP 18K 5% 1/10W	

## D1 Board Variant Parts KV-28FC60/28FC60/Z

### < CAPACITOR >

C6130	1-163-259-91	CERAMIC CHIP 220PF 5% 50V	
C6134	1-102-508-91	CERAMIC CHIP 10PF 0.5PF 50V	

### < RESISTOR >

R6107	1-216-657-11	METAL CHIP 1.8K 0.50% 1/10W	
R6108	1-216-657-11	METAL CHIP 1.8K 0.50% 1/10W	
R6127	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R6130	1-218-768-11	METAL CHIP 470K 0.50% 1/10W	
R6141	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6142	1-216-670-11	METAL CHIP 6.2K 0.50% 1/10W	
R6144	1-216-105-91	RES,CHIP 220K 5% 1/10W	
R6145	1-216-053-00	RES,CHIP 1.5K 5% 1/10W	

R6154	1-216-067-00	RES,CHIP 5.6K 5% 1/10W	
R6158	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R6159	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R6161	1-216-671-11	METAL CHIP 6.8K 0.50% 1/10W	
R6174	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R6175	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6176	1-216-295-91	SHORT 0	
R6179	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6186	1-216-045-00	RES,CHIP 680 5% 1/10W	
R6189	1-216-059-00	RES,CHIP 2.7K 5% 1/10W	
R6193	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
R6198	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R6200	1-216-695-11	METAL CHIP 68K 0.50% 1/10W	
R6206	1-216-107-00	RES,CHIP 270K 5% 1/10W	
R6207	1-216-113-00	RES,CHIP 470K 5% 1/10W	
R6265	1-216-101-91	RES,CHIP 150K 5% 1/10W	
R6268	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R6276	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R6277	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R6284	1-216-113-00	RES,CHIP 470K 5% 1/10W	
R6286	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6287	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6370	1-216-675-91	METAL CHIP 10K 0.50% 1/10W	
R6428	1-216-103-00	RES,CHIP 180K 5% 1/10W	
R6431	1-216-115-00	RES,CHIP 560K 5% 1/10W	

## D1 Board Variant Parts KV-32FC60/32FC60/Z

### < RESISTOR >

R6107	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R6108	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R6127	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R6130	1-218-769-11	METAL CHIP 510K 0.50% 1/10W	
R6141	1-216-679-11	METAL CHIP 15K 0.50% 1/10W	
R6142	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R6144	1-216-099-00	RES, CHIP 120K 5% 1/10W	
R6145	1-216-055-00	RES, CHIP 1.8K 5% 1/10W	
R6154	1-216-049-91	RES, CHIP 1K 5% 1/10W	
R6158	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R6159	1-216-295-91	SHORT 0	
R6161	1-216-673-11	METAL CHIP 8.2K 0.50% 1/10W	
R6174	1-216-081-00	RES, CHIP 22K 5% 1/10W	
R6175	1-216-069-00	RES, CHIP 6.8K 5% 1/10W	
R6176	1-216-071-00	RES, CHIP 8.2K 5% 1/10W	
R6179	1-216-295-91	SHORT 0	
R6186	1-216-063-91	RES, CHIP 3.9K 5% 1/10W	
R6189	1-216-295-91	SHORT 0	
R6198	1-216-081-00	RES, CHIP 22K 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
R6206	1-216-105-91	RES, CHIP 220K	5% 1/10W	D5404	8-719-991-33	DIODE 1SS133T-77	
R6207	1-216-105-91	RES, CHIP 220K	5% 1/10W	D5405	8-719-924-11	DIODE MTZJ-T-77-22	
R6265	1-216-105-91	RES, CHIP 220K	5% 1/10W	D5406	8-719-924-11	DIODE MTZJ-T-77-22	
R6266	1-216-113-00	RES, CHIP 470K	5% 1/10W	< FERRITE BEAD >			
R6268	1-216-093-91	RES, CHIP 68K	5% 1/10W	FB5400	1-410-397-21	FERRITE 1.1UH	
R6276	1-216-686-11	METAL CHIP 30K	0.50% 1/10W	FB5401	1-410-396-41	FERRITE 0.45UH	
R6277	1-216-686-11	METAL CHIP 30K	0.50% 1/10W	< COIL >			
R6284	1-216-109-00	RES, CHIP 330K	5% 1/10W	L5400	1-410-784-41	INDUCTOR 0.18UH	
R6286	1-216-071-00	RES, CHIP 8.2K	5% 1/10W	< TRANSISTOR >			
R6287	1-216-081-00	RES, CHIP 22K	5% 1/10W	Q5400	8-729-119-78	TRANSISTOR 2SC2785-HFE	
R6370	1-216-677-11	METAL CHIP 12K	0.50% 1/10W	Q5401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
R6428	1-216-101-00	RES, CHIP 150K	5% 1/10W	Q5402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
R6431	1-216-113-00	RES, CHIP 470K	5% 1/10W	Q5403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<b>*A-1644-103-A VM Board, Complete</b>				Q5404	8-729-026-39	TRANSISTOR 2SA933AS-QT	
1-675-177-11 PWB,VM				Q5405	8-729-026-39	TRANSISTOR 2SA933AS-QT	
4-382-854-11 SCREW (M3X10), P, SW (+)				Q5406	8-729-045-05	TRANSISTOR 2SA2005	
< CAPACITOR >				Q5407	8-729-045-04	TRANSISTOR 2SC5511	
C5400	1-107-883-11	ELECT 330MF	20% 16V	< RESISTOR >			
C5401	1-126-935-11	ELECT 470MF	20% 16V	R5400	1-249-401-11	CARBON 47 5% 1/4W	
C5402	1-137-370-11	FILM 0.01MF	5% 50V	R5401	1-249-421-11	CARBON 2.2K 5% 1/4W	
C5403	1-126-935-11	ELECT 470MF	20% 6.3V	R5402	1-249-413-11	CARBON 470 5% 1/4W	
C5405	1-126-933-11	ELECT 100MF	20% 16V	R5403	1-249-393-11	CARBON 10 5% 1/4W F	
C5406	1-126-935-11	ELECT 470MF	20% 6.3V	R5404	1-249-417-11	CARBON 1K 5% 1/4W	
C5407	1-104-989-91	FILM 0.0022MF	5% 200V	R5405	1-249-425-11	CARBON 4.7K 5% 1/4W	
C5408	1-104-989-91	FILM 0.0022MF	5% 200V	R5406	1-249-425-11	CARBON 4.7K 5% 1/4W	
C5409	1-107-649-11	ELECT 2.2MF	20% 250V	R5407	1-249-399-11	CARBON 33 5% 1/4W	
C5410	1-130-471-00	FILM 0.001MF	5% 50V	R5408	1-247-807-31	CARBON 100 5% 1/4W	
C5411	1-130-471-00	FILM 0.001MF	5% 50V	R5409	1-247-815-91	CARBON 220 5% 1/4W	
C5412	1-126-933-11	ELECT 100MF	20% 16V	R5410	1-249-401-11	CARBON 47 5% 1/4W	
C5413	1-126-933-11	ELECT 100MF	20% 16V	R5411	1-249-401-11	CARBON 47 5% 1/4W	
C5414	1-107-652-11	ELECT 10MF	20% 250V	R5412	1-249-429-11	CARBON 10K 5% 1/4W	
C5415	1-107-363-91	FILM 0.0068MF	10% 200V	R5413	1-249-414-11	CARBON 560 5% 1/4W F	
C5416	1-102-106-00	CERAMIC 100PF	10% 50V	R5414	1-249-432-11	CARBON 18K 5% 1/4W	
C5419	1-101-880-00	CERAMIC 47PF	5% 50V	R5415	1-260-311-11	CARBON 39 5% 1/2W	
< CONNECTOR >				R5416	1-249-383-11	CARBON 1.5 5% 1/4W F	
CN5402	*1-568-878-51	PIN, CONNECTOR 3P		R5417	1-249-432-11	CARBON 18K 5% 1/4W	
CN5444	*1-770-723-11	CONNECTOR, BOARD TO BOARD 8P		R5418	1-249-414-11	CARBON 560 5% 1/4W	
CN5602	*1-568-881-51	PIN, CONNECTOR 6P		R5419	1-249-421-11	CARBON 2.2K 5% 1/4W	
< DIODE >				R5420	1-249-421-11	CARBON 2.2K 5% 1/4W	
D5400	8-719-991-33	DIODE 1SS133T-77		R5421	1-249-383-11	CARBON 1.5 5% 1/4W F	
D5401	8-719-510-02	DIODE D1NS4		R5422	1-249-400-11	CARBON 39 5% 1/4W F	
D5402	8-719-991-33	DIODE 1SS133T-77		R5423	1-216-483-11	METAL OXIDE 2.7K 5% 3W F	
D5403	8-719-991-33	DIODE 1SS133T-77		R5425	1-249-419-11	CARBON 1.5K 5% 1/4W	

H2

H3

H4

U

J

REF. NO.	PART.NO	DESCRIPTION		REMARK	
*A-1646-193-A H2 Board, Complete					
< CAPACITOR >					
C7150	1-126-969-11	ELECT	220MF	20%	50V
< CONNECTOR >					
CN1800	*1-564-519-11	PLUG, CONNECTOR 4P			
< DIODE >					
D7150	8-719-030-11	DIODE SLA-570KT3F			
	4-203-258-11	HOLDER, LED (D7150)			
< IC >					
IC7150	8-749-014-59	IC TSOP1740KS1			
< RESISTOR >					
R7150	1-247-815-91	CARBON	220	5%	1/4W
R7151	1-249-411-11	CARBON	330	5%	1/4W
*A-1646-194-A H3 Board, Complete					
< CAPACITOR >					
C7825	1-137-372-11	FILM	0.022MF	5%	50V
C7826	1-137-372-11	FILM	0.022MF	5%	50V
< CONNECTOR >					
CN1893	*1-564-519-11	PLUG, CONNECTOR 4P			
< JACK >					
J7825	1-785-448-21	JACK			
< COIL >					
L7825	1-414-183-41	INDUCTOR	10UH		
L7826	1-414-183-41	INDUCTOR	10UH		
*A-1646-195-A H4 Board, Complete					
< CAPACITOR >					
C7800	1-101-810-00	CERAMIC	100PF	5%	500V
C7801	1-101-810-00	CERAMIC	100PF	5%	500V
< CONNECTOR >					
CN1803	*1-564-522-11	PLUG, CONNECTOR 7P			

REF. NO.	PART.NO	DESCRIPTION	REMARK
< JACK >			
J7800	1-793-529-11	TERMINAL BLOCK, S	
< RESISTOR >			
R7800	1-535-303-00	LEAD, JUMPER (5.0MM)	
R7801	1-249-417-11	CARBON 1K 5%	1/4W
R7802	1-247-895-91	CARBON 470K 5%	1/4W
R7803	1-247-895-91	CARBON 470K 5%	1/4W
R7805	1-249-417-11	CARBON 1K 5%	1/4W
*A-1648-026-A U Board, Complete			
< CAPACITOR >			
C7961	1-101-005-00	CERAMIC 0.022MF	50V
C7962	1-101-005-00	CERAMIC 0.022MF	50V
< CONNECTOR >			
CN7101	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P	
CN7977	*1-564-519-11	PLUG, CONNECTOR 4P	
CN7988	*1-564-519-11	PLUG, CONNECTOR 4P	
CN7990	*1-564-518-11	PLUG, CONNECTOR 3P	
< JACK >			
J7952	1-537-339-11	TERMINAL BOARD	
< COIL >			
L7954	1-414-761-11	INDUCTOR 1UH	
L7956	1-414-761-11	INDUCTOR 1UH	
*A-1651-119-A J Board, Complete			
< CAPACITOR >			
C8105	1-126-933-11	ELECT 100MF	20% 16V
C8106	1-126-933-11	ELECT 100MF	20% 16V
C8107	1-126-935-11	ELECT 470MF	20% 16V
C8108	1-126-933-11	ELECT 100MF	20% 16V
C8109	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8110	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8111	1-126-933-11	ELECT 100MF	20% 16V
C8112	1-128-551-11	ELECT 22MF	20% 25V
C8144	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C8145	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C8200	1-104-664-11	ELECT 47MF	20% 16V
C8201	1-163-241-11	CERAMIC CHIP 39PF	5% 50V
C8202	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8203	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8204	1-164-506-11	CERAMIC CHIP 4.7MF	16V

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
C8205	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C8314	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8208	1-164-506-11	CERAMIC CHIP 4.7MF	16V	C8318	1-104-664-11	ELECT 47MF	20% 16V
C8209	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C8321	1-104-664-11	ELECT 47MF	20% 16V
C8210	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8322	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C8211	1-163-243-11	CERAMIC CHIP 47PF	5% 50V	C8323	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8212	1-163-243-11	CERAMIC CHIP 47PF	5% 50V	C8324	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8213	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V	C8325	1-126-964-11	ELECT 10MF	20% 50V
C8214	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V	C8326	1-104-664-11	ELECT 47MF	20% 16V
C8215	1-163-243-11	CERAMIC CHIP 47PF	5% 50V	C8327	1-107-682-11	CERAMIC CHIP 1MF	10% 16V
C8216	1-126-933-11	ELECT 100MF	20% 16V	C8328	1-104-664-11	ELECT 47MF	20% 16V
C8217	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8329	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8218	1-126-964-11	ELECT 10MF	20% 50V	C8331	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8219	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8332	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8220	1-126-964-11	ELECT 10MF	20% 50V	C8333	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8221	1-104-664-11	ELECT 47MF	20% 16V	C8334	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8222	1-104-664-11	ELECT 47MF	20% 16V	C8335	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8223	1-104-664-11	ELECT 47MF	20% 16V	C8336	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8224	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8337	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8225	1-104-664-11	ELECT 47MF	20% 16V	C8338	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8227	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C8345	1-164-346-11	CERAMIC CHIP 1MF	16V
C8228	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C8346	1-126-963-11	ELECT 4.7MF	20% 50V
C8229	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C8424	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V
C8230	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C8501	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8231	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C8503	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8232	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8504	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8233	1-104-664-11	ELECT 47MF	20% 16V	C8505	1-126-933-11	ELECT 100MF	20% 16V
C8234	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C8506	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C8235	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C8507	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8236	1-126-933-11	ELECT 100MF	20% 16V	C8508	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8237	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C8509	1-126-933-11	ELECT 100MF	20% 16V
C8238	1-164-505-11	CERAMIC CHIP 2.2MF	16V	C8510	1-104-664-11	ELECT 47MF	20% 16V
C8239	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C8511	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8240	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C8512	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8241	1-126-964-11	ELECT 10MF	20% 50V	C8513	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8242	1-104-664-11	ELECT 47MF	20% 16V	C8514	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8243	1-110-501-11	CERAMIC CHIP 0.33MF	10% 16V	C8515	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8301	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V	C8516	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8302	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C8517	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8303	1-126-933-11	ELECT 100MF	20% 16V	C8518	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8304	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V	C8519	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8305	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C8520	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8306	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C8521	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8307	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V	C8601	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V
C8308	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V	C8602	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V
C8309	1-126-961-11	ELECT 2.2MF	20% 50V	C8605	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V
C8311	1-104-664-11	ELECT 47MF	20% 16V	C8606	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V
C8313	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C8607	1-104-664-11	ELECT 47MF	20% 16V

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C8608	1-104-664-11	ELECT 47MF	20% 16V	C8840	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8609	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V	C8841	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8610	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V	C8842	1-104-664-11	ELECT 47MF	20% 16V
C8611	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V	C8843	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8612	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V	C8844	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8613	1-104-664-11	ELECT 47MF	20% 16V	C8846	1-126-933-11	ELECT 100MF	20% 16V
C8614	1-104-664-11	ELECT 47MF	20% 16V	C8847	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8700	1-126-964-11	ELECT 10MF	20% 50V	C8849	1-164-346-11	CERAMIC CHIP 1MF	16V
C8701	1-104-664-11	ELECT 47MF	20% 16V	C8850	1-164-346-11	CERAMIC CHIP 1MF	16V
C8702	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C8851	1-126-967-11	ELECT 47MF	20% 50V
C8703	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8852	1-164-346-11	CERAMIC CHIP 1MF	16V
C8704	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C8853	1-126-967-11	ELECT 47MF	20% 50V
C8705	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C8854	1-164-346-11	CERAMIC CHIP 1MF	16V
C8706	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C8855	1-164-346-11	CERAMIC CHIP 1MF	16V
C8707	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C8856	1-164-346-11	CERAMIC CHIP 1MF	16V
C8708	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8857	1-164-346-11	CERAMIC CHIP 1MF	16V
C8709	1-126-964-11	ELECT 10MF	20% 50V	C8858	1-164-346-11	CERAMIC CHIP 1MF	16V
C8710	1-126-933-11	ELECT 100MF	20% 16V	C8859	1-164-346-11	CERAMIC CHIP 1MF	16V
C8801	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8860	1-164-346-11	CERAMIC CHIP 1MF	16V
C8802	1-104-664-11	ELECT 47MF	20% 16V	C8861	1-164-346-11	CERAMIC CHIP 1MF	16V
C8803	1-104-664-11	ELECT 47MF	20% 16V	C8862	1-164-346-11	CERAMIC CHIP 1MF	16V
C8804	1-126-933-11	ELECT 100MF	20% 16V	C8863	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8806	1-163-253-11	CERAMIC CHIP 120PF	5% 50V	C8864	1-164-346-11	CERAMIC CHIP 1MF	16V
C8807	1-163-249-11	CERAMIC CHIP 82PF	5% 50V	C8865	1-104-664-11	ELECT 47MF	20% 16V
C8808	1-163-249-11	CERAMIC CHIP 82PF	5% 50V	C8866	1-164-346-11	CERAMIC CHIP 1MF	16V
C8809	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V	C8867	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8810	1-164-222-11	CERAMIC CHIP 0.22MF	25V	C8868	1-126-964-11	ELECT 10MF	20% 50V
C8811	1-164-222-11	CERAMIC CHIP 0.22MF	25V	C8869	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8812	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C8900	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8814	1-104-664-11	ELECT 47MF	20% 25V	C8901	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C8816	1-163-081-00	CERAMIC CHIP 0.22MF	25V	C8902	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C8822	1-126-933-11	ELECT 100MF	20% 16V	C8903	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8825	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V	C8904	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C8826	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C8905	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8827	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8906	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8828	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8907	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C8829	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8908	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8830	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8909	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C8831	1-126-964-11	ELECT 10MF	20% 50V	C8910	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8832	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8911	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C8833	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8914	1-126-933-11	ELECT 100MF	20% 16V
C8834	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8977	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C8835	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C8978	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C8836	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	< FILTER >			
C8837	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	CF8200	1-409-327-00	TRAP, CERAMIC (6.5MHZ)	
C8838	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C8839	1-163-251-11	CERAMIC CHIP 100PF	5% 50V				



REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
< CONNECTOR >				FL8302	1-236-071-11	ENCAPSULATED COMPONENT	
CN8101	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P		FL8304	1-236-071-11	ENCAPSULATED COMPONENT	
CN8102	*1-564-518-11	PLUG, CONNECTOR 3P		FL8308	1-236-071-11	ENCAPSULATED COMPONENT	
CN8900	1-561-534-41	SOCKET, PIN 21P		FL8500	1-236-071-11	ENCAPSULATED COMPONENT	
CN8901	1-695-293-11	SOCKET 21P		FL8501	1-236-071-11	ENCAPSULATED COMPONENT	
CN8902	1-695-293-11	SOCKET 21P		FL8502	1-233-765-21	FILTER	
< DIODE >				FL8503	1-233-768-21	FILTER	
D8200	8-719-158-49	DIODE RD12SB2		FL8504	1-233-766-21	FILTER	
D8201	8-719-158-49	DIODE RD12SB2		FL8700	1-236-071-11	ENCAPSULATED COMPONENT	
D8202	8-719-158-49	DIODE RD12SB2		FL8701	1-236-071-11	ENCAPSULATED COMPONENT	
D8203	8-719-158-49	DIODE RD12SB2		FL8801	1-236-071-11	ENCAPSULATED COMPONENT	
D8801	8-719-158-49	DIODE RD12SB2		FL8802	1-236-071-11	ENCAPSULATED COMPONENT	
< IC >				< IC >			
D8802	8-719-158-49	DIODE RD12SB2		IC8101	8-759-576-76	IC TDA2822D013TR	
D8803	8-719-158-49	DIODE RD12SB2		IC8151	8-752-072-94	IC CXA1875AM-T4	
D8804	8-719-158-49	DIODE RD12SB2		IC8200	8-759-544-10	IC MSP3410D-QA-B4	
D8805	8-719-158-49	DIODE RD12SB2		IC8201	8-759-701-36	IC NJM3403AM	
D8806	8-719-158-49	DIODE RD12SB2		IC8202	8-759-908-15	IC TL431CLP	
D8807	8-719-158-49	DIODE RD12SB2		IC8301	8-752-094-47	IC CXA2123Q-T6	
D8808	8-719-158-49	DIODE RD12SB2		IC8302	8-759-485-79	IC TC7SET08FU(TE85L)	
D8809	8-719-158-49	DIODE RD12SB2		IC8500	8-752-390-37	IC CXD2064Q-T6	
D8810	8-719-158-49	DIODE RD12SB2		IC8601	8-759-576-74	IC LF90CDT-TR	
D8811	8-719-158-49	DIODE RD12SB2		IC8602	8-759-576-72	IC LF50CDT-TR	
D8812	8-719-158-49	DIODE RD12SB2		IC8603	8-759-576-72	IC LF50CDT-TR	
D8813	8-719-158-49	DIODE RD12SB2		IC8604	8-759-576-72	IC LF50CDT-TR	
D8814	8-719-158-49	DIODE RD12SB2		IC8700	8-752-390-35	IC CXD2057M-T6	
D8900	8-719-056-85	DIODE UDZ-TE-17-8.2B		IC8801	8-752-090-38	IC CXA2129Q-TL	
D8901	8-719-158-49	DIODE RD12SB2		IC8802	8-759-385-76	IC MC14052BDR2	
D8902	8-719-056-85	DIODE UDZ-TE-17-8.2B		< JACK >			
D8903	8-719-056-85	DIODE UDZ-TE-17-8.2B		J8901	1-774-747-11	JACK BLOCK, PIN	
D8904	8-719-056-85	DIODE UDZ-TE-17-8.2B		< COIL >			
D8905	8-719-056-85	DIODE UDZ-TE-17-8.2B		L8150	1-414-757-11	INDUCTOR 100UH	
D8906	8-719-056-85	DIODE UDZ-TE-17-8.2B		L8200	1-412-006-42	INDUCTOR CHIP 10UH	
D8907	8-719-158-49	DIODE RD12SB2		L8201	1-412-064-11	INDUCTOR CHIP 100UH	
D8908	8-719-056-85	DIODE UDZ-TE-17-8.2B		L8801	1-412-751-11	INDUCTOR 18UH	
D8909	8-719-056-85	DIODE UDZ-TE-17-8.2B		< TRANSISTOR >			
D8910	8-719-056-85	DIODE UDZ-TE-17-8.2B		Q8100	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D8911	8-719-056-85	DIODE UDZ-TE-17-8.2B		Q8101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D8912	8-719-158-49	DIODE RD12SB2		Q8156	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D8913	8-719-158-49	DIODE RD12SB2		Q8157	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D8914	8-719-158-49	DIODE RD12SB2		Q8200	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D8915	8-719-158-49	DIODE RD12SB2		Q8201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
< FILTER >				Q8202	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
FL8200	1-236-071-11	ENCAPSULATED COMPONENT					
FL8201	1-233-764-21	FILTER					
FL8203	1-236-071-11	ENCAPSULATED COMPONENT					

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REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
Q8300	8-729-216-22	TRANSISTOR 2SA1162-G		R8200	1-216-049-91	RES,CHIP 1K 5%	1/10W
Q8302	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R8201	1-216-295-91	SHORT 0	
Q8303	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R8202	1-216-021-00	RES,CHIP 68 5%	1/10W
Q8305	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R8203	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
Q8306	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R8204	1-216-049-91	RES,CHIP 1K 5%	1/10W
Q8308	8-729-038-96	TRANSISTOR IMZ1A-T109		R8205	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
Q8309	8-729-038-96	TRANSISTOR IMZ1A-T109		R8206	1-216-049-91	RES,CHIP 1K 5%	1/10W
Q8310	8-729-038-96	TRANSISTOR IMZ1A-T109		R8208	1-216-037-00	RES,CHIP 330 5%	1/10W
Q8501	8-729-216-22	TRANSISTOR 2SA1162-G		R8209	1-216-659-11	METAL CHIP 2.2K 0.50%	1/10W
Q8503	8-729-216-22	TRANSISTOR 2SA1162-G		R8210	1-216-025-91	RES,CHIP 100 5%	1/10W
Q8504	8-729-216-22	TRANSISTOR 2SA1162-G		R8211	1-216-295-91	SHORT 0	
Q8700	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R8212	1-216-295-91	SHORT 0	
Q8801	8-729-216-22	TRANSISTOR 2SA1162-G		R8213	1-216-295-91	SHORT 0	
Q8802	8-729-216-22	TRANSISTOR 2SA1162-G		R8214	1-216-295-91	SHORT 0	
Q8804	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R8216	1-216-025-91	RES,CHIP 100 5%	1/10W
Q8805	8-729-216-22	TRANSISTOR 2SA1162-G		R8217	1-216-025-91	RES,CHIP 100 5%	1/10W
Q8807	8-729-216-22	TRANSISTOR 2SA1162-G		R8218	1-216-049-91	RES,CHIP 1K 5%	1/10W
Q8808	8-729-039-67	TRANSISTOR BSS83		R8219	1-216-025-91	RES,CHIP 100 5%	1/10W
Q8809	8-729-216-22	TRANSISTOR 2SA1162-G		R8220	1-216-025-91	RES,CHIP 100 5%	1/10W
Q8812	8-729-038-96	TRANSISTOR IMZ1A-T109		R8221	1-216-025-91	RES,CHIP 100 5%	1/10W
Q8817	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R8222	1-216-295-91	SHORT 0	
Q8818	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R8223	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q8819	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R8224	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q8901	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R8225	1-216-089-91	RES,CHIP 47K 5%	1/10W
Q8902	8-729-216-22	TRANSISTOR 2SA1162-G		R8226	1-216-089-91	RES,CHIP 47K 5%	1/10W
< RESISTOR >				R8227	1-216-089-91	RES,CHIP 47K 5%	1/10W
JR8401	1-216-295-91	SHORT 0		R8228	1-216-089-91	RES,CHIP 47K 5%	1/10W
R8103	1-216-075-00	RES,CHIP 12K 5%	1/10W	R8229	1-216-295-91	SHORT 0	
R8104	1-216-075-00	RES,CHIP 12K 5%	1/10W	R8230	1-216-081-00	RES,CHIP 22K 5%	1/10W
R8105	1-216-057-00	RES,CHIP 2.2K 5%	1/10W	R8231	1-216-089-91	RES,CHIP 47K 5%	1/10W
R8106	1-216-081-00	RES,CHIP 22K 5%	1/10W	R8232	1-216-089-91	RES,CHIP 47K 5%	1/10W
R8107	1-216-081-00	RES,CHIP 22K 5%	1/10W	R8233	1-216-089-91	RES,CHIP 47K 5%	1/10W
R8108	1-216-057-00	RES,CHIP 2.2K 5%	1/10W	R8234	1-216-089-91	RES,CHIP 47K 5%	1/10W
R8109	1-249-389-11	CARBON 4.7 5%	1/4W F	R8235	1-216-089-91	RES,CHIP 47K 5%	1/10W
R8110	1-249-389-11	CARBON 4.7 5%	1/4W F	R8236	1-216-089-91	RES,CHIP 47K 5%	1/10W
R8111	1-216-033-00	RES,CHIP 220 5%	1/10W	R8237	1-216-043-91	RES,CHIP 560 5%	1/10W
R8112	1-216-033-00	RES,CHIP 220 5%	1/10W	R8238	1-216-063-91	RES,CHIP 3.9K 5%	1/10W
R8115	1-216-029-00	RES,CHIP 150 5%	1/10W	R8239	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
R8116	1-216-029-00	RES,CHIP 150 5%	1/10W	R8240	1-216-651-11	METAL CHIP 1K 0.50%	1/10W
R8117	1-216-029-00	RES,CHIP 150 5%	1/10W	R8243	1-216-021-00	RES,CHIP 68 5%	1/10W
R8118	1-216-029-00	RES,CHIP 150 5%	1/10W	R8300	1-216-295-91	SHORT 0	
R8165	1-216-295-91	SHORT 0		R8302	1-216-017-91	RES,CHIP 47 5%	1/10W
R8167	1-216-025-91	RES,CHIP 100 5%	1/10W	R8306	1-216-083-00	RES,CHIP 27K 5%	1/10W
R8168	1-216-025-91	RES,CHIP 100 5%	1/10W	R8307	1-216-049-91	RES,CHIP 1K 5%	1/10W
R8174	1-216-065-91	RES,CHIP 4.7K 5%	1/10W	R8308	1-216-039-00	RES,CHIP 390 5%	1/10W
R8175	1-216-065-91	RES,CHIP 4.7K 5%	1/10W	R8309	1-216-049-91	RES,CHIP 1K 5%	1/10W
				R8310	1-216-037-00	RES,CHIP 330 5%	1/10W

REF. NO.	PART.NO	DESCRIPTION	REMARK			REF. NO.	PART.NO	DESCRIPTION	REMARK		
R8312	1-216-091-00	RES,CHIP	56K	5%	1/10W	R8529	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R8313	1-216-081-00	RES,CHIP	22K	5%	1/10W	R8530	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R8314	1-216-295-91	SHORT	0			R8531	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R8316	1-216-037-00	RES,CHIP	330	5%	1/10W	R8532	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8317	1-216-295-91	SHORT	0			R8700	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8318	1-216-295-91	SHORT	0			R8701	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8319	1-216-295-91	SHORT	0			R8702	1-216-025-91	RES,CHIP	100	5%	1/10W
R8320	1-216-041-00	RES,CHIP	470	5%	1/10W	R8703	1-216-025-91	RES,CHIP	100	5%	1/10W
R8322	1-216-049-91	RES,CHIP	1K	5%	1/10W	R8704	1-216-025-91	RES,CHIP	100	5%	1/10W
R8323	1-216-017-91	RES,CHIP	47	5%	1/10W	R8705	1-216-295-00	SHORT	0		
R8324	1-216-041-00	RES,CHIP	470	5%	1/10W	R8706	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8326	1-216-017-91	RES,CHIP	47	5%	1/10W	R8707	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8328	1-216-025-91	RES,CHIP	100	5%	1/10W	R8708	1-216-081-00	RES,CHIP	22K	5%	1/10W
R8329	1-216-025-91	RES,CHIP	100	5%	1/10W	R8709	1-216-059-91	RES,CHIP	2.7K	5%	1/10W
R8330	1-216-041-00	RES,CHIP	470	5%	1/10W	R8801	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8331	1-216-041-00	RES,CHIP	470	5%	1/10W	R8802	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8332	1-216-041-00	RES,CHIP	470	5%	1/10W	R8803	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8333	1-216-041-00	RES,CHIP	470	5%	1/10W	R8804	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8334	1-216-041-00	RES,CHIP	470	5%	1/10W	R8805	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R8336	1-216-041-00	RES,CHIP	470	5%	1/10W	R8806	1-216-085-00	RES,CHIP	33K	5%	1/10W
R8337	1-216-041-00	RES,CHIP	470	5%	1/10W	R8807	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8338	1-216-017-91	RES,CHIP	47	5%	1/10W	R8810	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R8339	1-216-017-91	RES,CHIP	47	5%	1/10W	R8811	1-216-037-00	RES,CHIP	330	5%	1/10W
R8340	1-216-063-91	RES,CHIP	3.9K	5%	1/10W	R8812	1-216-037-00	RES,CHIP	330	5%	1/10W
R8341	1-216-041-00	RES,CHIP	470	5%	1/10W	R8813	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8344	1-216-091-00	RES,CHIP	56K	5%	1/10W	R8816	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8345	1-216-079-00	RES,CHIP	18K	5%	1/10W	R8817	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8346	1-216-091-00	RES,CHIP	56K	5%	1/10W	R8818	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8347	1-216-079-00	RES,CHIP	18K	5%	1/10W	R8819	1-216-041-00	RES,CHIP	470	5%	1/10W
R8506	1-216-091-00	RES,CHIP	56K	5%	1/10W	R8821	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8507	1-216-295-91	SHORT	0			R8822	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8508	1-216-043-91	RES,CHIP	560	5%	1/10W	R8823	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8509	1-216-031-91	RES,CHIP	180	5%	1/10W	R8825	1-216-025-91	RES,CHIP	100	5%	1/10W
R8510	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	R8826	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R8511	1-216-049-91	RES,CHIP	1K	5%	1/10W	R8833	1-216-041-00	RES,CHIP	470	5%	1/10W
R8512	1-216-295-91	SHORT	0			R8834	1-216-041-00	RES,CHIP	470	5%	1/10W
R8514	1-216-017-91	RES,CHIP	47	5%	1/10W	R8835	1-216-041-00	RES,CHIP	470	5%	1/10W
R8517	1-216-295-91	SHORT	0			R8836	1-216-025-91	RES,CHIP	100	5%	1/10W
R8519	1-216-037-00	RES,CHIP	330	5%	1/10W	R8846	1-216-295-91	SHORT	0		
R8520	1-216-041-00	RES,CHIP	470	5%	1/10W	R8854	1-216-029-91	RES,CHIP	150	5%	1/10W
R8521	1-216-061-00	RES,CHIP	3.3K	5%	1/10W	R8855	1-216-031-91	RES,CHIP	180	5%	1/10W
R8522	1-216-041-00	RES,CHIP	470	5%	1/10W	R8856	1-216-055-91	RES,CHIP	1.8K	5%	1/10W
R8523	1-216-033-00	RES,CHIP	220	5%	1/10W	R8857	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8524	1-216-295-91	SHORT	0			R8858	1-216-079-00	RES,CHIP	18K	5%	1/10W
R8526	1-216-061-00	RES,CHIP	3.3K	5%	1/10W	R8859	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8527	1-216-047-91	RES,CHIP	820	5%	1/10W	R8862	1-216-295-91	SHORT	0		
R8528	1-216-047-91	RES,CHIP	820	5%	1/10W	R8864	1-216-295-91	SHORT	0		



REF.NO.	PART.NO	DESCRIPTION	REMARK		
R8865	1-216-023-00	RES,CHIP	82	5%	1/10W
R8866	1-216-022-00	RES,CHIP	75	5%	1/10W
R8867	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8868	1-216-033-00	RES,CHIP	220	5%	1/10W
R8869	1-216-033-00	RES,CHIP	220	5%	1/10W
R8870	1-216-295-91	SHORT	0		
R8871	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8872	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8873	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8874	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8875	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8876	1-216-093-91	RES,CHIP	68K	5%	1/10W
R8877	1-216-093-91	RES,CHIP	68K	5%	1/10W
R8878	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8879	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R8881	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8882	1-216-079-00	RES,CHIP	18K	5%	1/10W
R8883	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R8885	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R8888	1-216-033-00	RES,CHIP	220	5%	1/10W
R8889	1-216-033-00	RES,CHIP	220	5%	1/10W
R8891	1-216-295-91	SHORT	0		
R8892	1-216-295-91	SHORT	0		
R8893	1-216-295-91	SHORT	0		
R8900	1-216-039-00	RES,CHIP	390	5%	1/10W
R8901	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8902	1-216-039-00	RES,CHIP	390	5%	1/10W
R8903	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8904	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8905	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8906	1-216-035-00	RES,CHIP	270	5%	1/10W
R8907	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8908	1-216-035-00	RES,CHIP	270	5%	1/10W
R8909	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8911	1-216-025-91	RES,CHIP	100	5%	1/10W
R8913	1-216-022-00	RES,CHIP	75	5%	1/10W
R8914	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R8915	1-216-022-00	RES,CHIP	75	5%	1/10W
R8916	1-216-033-00	RES,CHIP	220	5%	1/10W
R8917	1-216-033-00	RES,CHIP	220	5%	1/10W
R8918	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8919	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8922	1-216-022-00	RES,CHIP	75	5%	1/10W
R8923	1-216-022-00	RES,CHIP	75	5%	1/10W
R8924	1-216-022-00	RES,CHIP	75	5%	1/10W
R8925	1-216-022-00	RES,CHIP	75	5%	1/10W
R8926	1-216-033-00	RES,CHIP	220	5%	1/10W

REF.NO.	PART.NO	DESCRIPTION	REMARK		
R8927	1-216-033-00	RES,CHIP	220	5%	1/10W
R8928	1-216-033-00	RES,CHIP	220	5%	1/10W
R8929	1-216-039-00	RES,CHIP	390	5%	1/10W
R8930	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8931	1-216-039-00	RES,CHIP	390	5%	1/10W
R8932	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8933	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8934	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8935	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8936	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8937	1-216-035-00	RES,CHIP	270	5%	1/10W
R8938	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8939	1-216-035-00	RES,CHIP	270	5%	1/10W
R8940	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8941	1-216-025-91	RES,CHIP	100	5%	1/10W
R8942	1-216-009-91	RES,CHIP	22	5%	1/10W
R8943	1-216-022-00	RES,CHIP	75	5%	1/10W
R8944	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R8945	1-216-022-00	RES,CHIP	75	5%	1/10W
R8946	1-216-033-00	RES,CHIP	220	5%	1/10W
R8947	1-216-039-00	RES,CHIP	390	5%	1/10W
R8948	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8949	1-216-022-00	RES,CHIP	75	5%	1/10W
R8950	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8951	1-216-033-00	RES,CHIP	220	5%	1/10W
R8952	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8953	1-216-035-00	RES,CHIP	270	5%	1/10W
R8954	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8955	1-216-039-00	RES,CHIP	390	5%	1/10W
R8956	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8957	1-216-025-91	RES,CHIP	100	5%	1/10W
R8958	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8959	1-216-022-00	RES,CHIP	75	5%	1/10W
R8960	1-216-033-00	RES,CHIP	220	5%	1/10W
R8961	1-216-022-00	RES,CHIP	75	5%	1/10W
R8962	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R8963	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8964	1-216-035-00	RES,CHIP	270	5%	1/10W
R8965	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8968	1-216-022-91	RES,CHIP	75	5%	1/10W
R8969	1-216-033-00	RES,CHIP	220	5%	1/10W
R8974	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8977	1-216-037-00	RES,CHIP	330	5%	1/10W
R8978	1-216-037-00	RES,CHIP	330	5%	1/10W
R8979	1-216-045-00	RES,CHIP	680	5%	1/10W
R8980	1-216-045-00	RES,CHIP	680	5%	1/10W
R8981	1-216-089-91	RES,CHIP	47K	5%	1/10W

The components identified by shading and marked  $\Delta$  are critical for safety  
Replace only with the part number specified.

**J**

REF. NO.	PART.NO	DESCRIPTION	REMARK
R8982	1-216-079-00	RES,CHIP	18K 5% 1/10W
R8994	1-216-073-00	RES,CHIP	10K 5% 1/10W
R8995	1-216-059-91	RES,CHIP	2.7K 5% 1/10W
R8996	1-216-059-91	RES,CHIP	2.7K 5% 1/10W
R8998	1-216-041-91	RES,CHIP	470 5% 1/10W
< CRYSTAL >			
X8200	1-781-148-21	VIBRATOR, CRYSTAL	
X8301	1-781-612-11	VIBRATOR, CRYSTAL	
X8700	1-767-342-21	VIBRATOR, CRYSTAL	

REF. NO.	PART.NO	DESCRIPTION	REMARK
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#### MISCELLANEOUS

$\Delta$ 1-416-466-11	COIL, DEMAGNETIC (KV-28FC60/28FC60/Z)
$\Delta$ 1-416-769-11	COIL, DEMAGNETIC (KV-32FC60/32FC60/Z)
1-452-032-00	MAGNETIC DISK; 10MM
1-452-094-00	MAGNETIC, ROTATABLE DISK; 15MM
$\Delta$ 1-453-319-11	TRANSFORMER ASSY, FLYBACK (NX-4512/U214)
1-529-154-11	SPEAKER (5.7x24CM)
1-529-417-11	SPEAKER (8CM)
1-452-896-11	COIL, NA ROTATION (RT200)
$\Delta$ 1-571-433-21	SWITCH, PUSH (AC POWER)
$\Delta$ 1-769-185-21	CORD, POWER (WITH CONNECTOR)
1-693-340-11	TUNER/VIF (FR)
$\Delta$ 8-737-786-05	PICTURE TUBE (W66LLX060X) (SD-299) (KV-28FC60/28FC60/Z)
$\Delta$ 8-735-054-05	PICTURE TUBE (W76LLZ060X) (SD-302) (KV-32FC60/32FC60/Z)
$\Delta$ 1-451-481-11	DEFLECTION YOKE (Y28RVC2) (KV-28FC60/28FC60/Z)
$\Delta$ 1-451-480-11	DEFLECTION YOKE (Y32RVC2) (KV-32FC60/32FC60/Z)
$\Delta$ 8-453-011-11	NECK ASSY, NA299-M
$\Delta$ 1-251-317-63	CAP ASSY, HIGH VOLTAGE

#### ACCESSORIES AND PACKAGING MATERIALS

*4-205-029-11	MANUAL, INSTRUCTION
*4-029-168-01	BAG PROTECTION
*4-204-879-01	INDIVIDUAL CARTON (KV-28FC60/28FC60/Z)
*4-204-872-01	INDIVIDUAL CARTON (KV-32FC60/32FC60/Z)
*4-204-880-01	CUSHION (UPPER) (ASSY) (KV-28FC60/28FC60/Z)
*4-204-873-01	CUSHION (UPPER) (ASSY) (KV-32FC60/32FC60/Z)
*4-204-881-01	CUSHION (LOWER) (ASSY) (KV-28FC60/28FC60/Z)
*4-204-874-01	CUSHION (LOWER) (ASSY) (KV-32FC60/32FC60/Z)

#### REMOTE COMMANDER

1-418-572-11	REMOTE COMMANDER (RM-892) (KV-28FC60/32FC60)
1-418-573-11	REMOTE COMMANDER (RM-892) (KV-28FC60/Z/32FC60/Z)

**Sony Corporation**  
**Sony UK**  
**Service Promotions Dept.**

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